Model Area-wide Local Implementation Plan

July 2010

Submitted to:
California Regional Water Quality Control Board, Santa Ana Region

Submitted by:
San Bernardino County Stormwater Program

Principal Permittee
San Bernardino County Flood Control District

Co-Permittees

County of San Bernardino
City of Big Bear Lake
City of Chino
City of Chino Hills
City of Colton
City of Fontana
City of Grand Terrace
City of Highland
City of Loma Linda
City of Montclair
City of Ontario
City of Rancho Cucamonga
City of Redlands
City of Rialto
City of San Bernardino
City of Upland
City of Yucaipa

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Acronyms

BMP	Best Management Practice
CASQA	California Stormwater Quality Association
CBRP	Comprehensive Bacteria Reduction Plan
CEQA	California Environmental Quality Act
CESSWI	Certified Erosion, Sediment, and Storm Water Inspector
CFR	Code of Federal Regulations
CPESC	Certified Professional in Erosion and Sediment Control
CWA	Clean Water Act
EPA	Environmental Protection Agency
FOG	Fats, Oils and Grease
GIS	Geographical Information System
HCOC	Hydrologic Conditions of Concern
HMP	Hydromodification Monitoring Plan
HOA	Homeowner Association
IC/ID	Illegal Connection/Illicit Discharge
IDDE	Illicit Discharge Detection and Elimination
IWMP	Integrated Watershed Monitoring Plan
LID	Low Impact Development
LIP	Local Implementation Plan
LOP	Local Oversight Program
MAPPS	Municipal Activities Pollution Prevention Strategy
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MSAR	Middle Santa Ana River
MSWMP	Municipal Stormwater Management Plan
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
PEO	Public Education and Outreach
PRD	Permit Registration Document
QAPP	Quality Assurance Project Plan
ROWD	Report of Waste Discharge
RWQCB	Santa Ana Regional Water Quality Control Board
SARA	Superfund Amendment Reauthorization Act
SAWPA	Santa Ana Watershed Project Authority
SCCWRP	Southern California Coastal Water Research Project
SIC	Standard Industrial Classification
SMC	Stormwater Monitoring Coalition
SSO	Sanitary Sewer Overflow

SWAMP	Surface Water Ambient Monitoring Program
SWPPP	Stormwater Pollution Prevention Plan
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
WAP	Watershed Action Plan
WLA	Wasteload Allocation
WDID	Waste Discharge Identification Number
WQMP	Water Quality Management Plan

Section 1
Introduction

The federal Clean Water Act (CWA) establishes requirements for the discharge of urban runoff from Municipal Separate Storm Sewer Systems (MS4) under the National Pollutant Discharge Elimination System (NPDES) program. The Santa Ana Regional Water Quality Control Board (RWQCB) issued Permit Order No. R8-2010-0036 ("MS4 Permit") to authorize the discharge of urban runoff from the collective San Bernardino County MS4s within the Region on January 29, 2010. This is the fourth MS4 permit issued to the area-wide San Bernardino County Stormwater Program ("area-wide MS4 program") by the RWQCB since the first permit was issued in 1990. Unless administratively extended, the 2010 MS4 permit expires on January 28, 2015.

The MS4 Permit regulates discharges from all MS4 facilities within the Santa Ana River watershed in San Bernardino County. The permittees covered by this permit include the San Bernardino County Flood Control District ("District"), San Bernardino County ("County") and 16 municipal jurisdictions, including the City of INSERT. The District is the Principal Permittee; the remaining jurisdictions are the Co-Permittees. Although all permittees work cooperatively to implement the area-wide MS4 program, each permittee is responsible for compliance with the MS4 Permit within its respective jurisdiction.

1.1 Local Implementation Plan

The framework that provides the foundation for implementation of the MS4 Permit requirements is described in the Municipal Stormwater Management Plan (MSWMP). This Local Implementation Plan (LIP), a requirement of the MS4 Permit (*Sections III.A.2.a; III.B1*), describes how the City/County/District implements the requirements of the MS4 Permit within its own jurisdiction. Accordingly, the MSWMP and the LIP are the principal documents that comprehensively translate the MS4 Permit requirements into actions that manage water quality in the local MS4. This LIP includes the following sections:

- **Program Management (Section 2) –** Provides an overview of the area-wide MS4 Permit program, authority and organization, and the City/County/District's responsibilities with the MS4 Program. This section also documents the City/County/District's individual legal authority, organizational structure and departmental responsibilities, enforcement procedures, funding resources, information management, and training policies and procedures.

- **Illegal Connections/Illicit Discharges (Section 3) –** Describes the procedures for detecting and eliminating illegal connections and illicit discharges (IC/ID) to the MS4.

- **Municipal Inspection Programs (Section 4) –** Describes procedures for maintaining industrial facility, commercial facility, and construction site inventories, implementing periodic inspections and inspection procedures, and reducing pollutants from targeted sources associated with industrial or commercial facilities and construction activities.

- **New Development and Redevelopment (Section 5) –** Provides information regarding stormwater management requirements associated with new development or significant redevelopment projects.

- **Public Agency Activities (Section 6) –** Describes procedures for maintaining facility inventories, conducting facility inspections, and implementing municipal construction activities, and management programs to reduce potential sources of pollutants from sanitary sewers and targeted sources.

- **Residential (Section 7) –** Describes urban runoff management programs to reduce pollutants from residential areas.

- **Public Education and Outreach (Section 8) –** Summarizes activities carried out throughout San Bernardino County to educate the public on how to reduce pollutants in urban runoff.

- **Program Evaluation (Section 9) –** Describes MS4 Permit requirements to periodically evaluate program activities and implementation progress through venues such as this LIP, the MSWMP and Annual Reports.

- **Monitoring (Section 10) –** Describes monitoring activities conducted as part of the MS4 program to evaluate urban water quality trends and compliance with Total Maximum Daily Load (TMDL) requirements.

- **Watershed Management (Section 11) –** Describes MS4 Permit activities that relate to the management of urban runoff through a watershed-based approach.

To assist in facilitating correlation between this LIP and the MS4 Permit, parenthetic references to the applicable section(s) of the 2010 MS4 Permit are provided where appropriate (e.g., *III.A.2.a*).

1.2 City/County/District Description (Optional)

INSERT description of jurisdiction, including location map if appropriate.

1.3 Local/Regional Watershed and Waterbodies (Optional)

INSERT description and map of local waters, e.g., those regulated as Waters of the U.S.

1.4 City/County/District Policy Statement (Optional)

INSERT statement regarding water quality protection.

Example Text: It is the mission of the City of Chino Hills in partnership with the community, to continue to develop and maintain the aesthetic beauty of the City while fostering a safe and family oriented environment. The City is committed to providing excellent customer service, effectively managing growth, and creating a viable financial plan to ensure the continued success of the City.

The City values the family-oriented, rural atmosphere that it protects and maintains through policies that cluster development and dedicate open space for the enjoyment of future generations.

Local water resources are an asset to the community and protecting water quality is part of the City's overall mission. The City is committed to the protection of its water resources, and dedicated to reducing the impact of pollutants within urban runoff through implementation of its Stormwater Program.

Section 2
Program Management

2.1 Area-wide MS4 Program Structure

The MS4 Program permittees work cooperatively to implement an area-wide MS4 program to fulfill the requirements of the MS4 Permit. The management structure for this program is described below.

2.1.1 Implementation Agreement

The MS4 Permit establishes responsibilities for the Principal Permittee and Co-Permittees (*III*). To implement these responsibilities in a coordinated manner, all permittees operate under an Implementation Agreement that provides the framework for cooperative implementation of permit requirements across the County ((Appendix A – Implementation Agreement).

In addition to identifying permittee responsibilities under the permit, the Implementation Agreement establishes a cost-share formula that determines the City/County/District's annual contribution to the area-wide MS4 program. This cost-share formula considers the following factors: relative population within the County, relative MS4 area within the County and four programmatic areas (monitoring, training, public education, and program management and regulatory activities).

As needed, the MS4 permittees evaluate the Implementation Agreement and determine the need for any revision (*III.C*). If the Implementation Agreement is revised, a copy of the signature page and any revisions are included in the Annual Report (see LIP Section 9.3). The Position Title in the Agency/Department is responsible for representing the City/County/District when reviewing and revising the Implementation Agreement. If revised, the process for obtaining City/County/District approval is as follows:

INSERT process

2.1.2 Management Committee

The Management Committee is the primary decision-making body for implementation of the MS4 Program (*III.A, B*). The Management Committee is made up authorized representatives from each permitted jurisdiction. The Principal Permittee chairs the Management Committee and takes the lead role in initiating and developing area-wide MS4 program activities necessary to comply with the MS4 Permit. Management Committee decisions require a majority vote of the permittees on a one-vote–per-permittee basis for approval. The Management Committee typically meets once per month for 11 months each year (no meeting occurs during December, unless needed); the City/County participates in at least eight Management Committees each year, as required by the MS4 Permit.

The Management Committee provides guidance to the Principal Permittee with respect to program administration and approves elements of area-wide MS4 Permit program activities. The Management Committee has the authority to:

- Guide the Principal Permittee in:
  - Preparing and implementing an annual Management Committee budget;
  - Filing applications for MS4 permits;
  - Developing and implementing a local and area-wide integrated MS4 Permit program, including special studies required by the MS4 Permit;
  - Filing compliance reports and annual reports with the RWQCB;
  - Establishing performance criteria for management programs;
  - Establishing uniform progress reporting formats;
  - Monitoring the implementation and effectiveness of area-wide Best Management Practice (BMPs); and,
  - Performing stormwater quality and hydrographic monitoring for MS4 Permit compliance, including TMDL implementation activities.

- Approve area-wide management program elements, including development and implementation of:
  - Annual area-wide operating budgets;
  - Recommended modifications to the MSWMP including supporting documents such as the Water Quality Management Plan (WQMP) and Watershed Action Plans (WAP); and
  - Area-wide BMP programs.

The Management Committee does not assume any responsibility for developing or implementing the local MS4 Permit program elements for the City/County/District. This responsibility remains with the City/County/District.

The Agency/Department is the authorized lead Agency/Department for implementation of MS4 Permit activities in the City/County/District. The Position Title of this Agency/Department regularly participates in Management Committee activities.

2.1.3 Management Committee Subcommittees

Overall responsibility for MS4 Permit management and implementation lies with the Management Committee, with subcommittees providing an efficient mechanism for managing the development and review of specific program elements (*III.A, B*). Subcommittees report their findings and recommendations to the Management Committee for approval and adoption. Currently, the Management Committee has six

active subcommittees (other subcommittees may be established based on the specific needs of the MS4 Permit program):

- Public Education
- Monitoring
- Development
- Fiscal
- Training
- MS4 Database

The City/County/District actively participates in the following subcommittees: INSERT list and Position Title and/or Agency/Department of personnel participating on subcommittees.

2.2. MS4 Permit - Authorized Discharges

The MS4 Permit authorizes the discharge of stormwater to Waters of the United States. In addition, the permit also authorizes the following types of discharges unless they are identified by the City/County/District or the RWQCB as a significant source of pollutants or as a significant vehicle that may cause pollutants to migrate to a Waters of the United States (*V.A*):

- Discharges composed entirely of storm water;
- Air conditioning condensate;
- Irrigation water (these discharges should be minimized through public education and water conservation efforts; also see LIP Section 7, Residential);
- Passive foundation drains, which are allowed only if the source water drained from the foundation is stormwater or uncontaminated groundwater;
- Passive footing drains, where the discharge is uncontaminated;
- Water from crawl space pumps, where the discharge is uncontaminated;
- Non-commercial vehicle washing, e.g. residential car washing (excluding engine degreasing) and car washing for fundraisers by non-profit organizations (charity car washes should be limited to bona-fide 501 agencies);
- Dechlorinated swimming pool discharges (cleaning wastewater and filter backwash are not authorized for discharge into the MS4s or to Waters of the U.S.)
- Diverted stream flows (although other permits may be required);

- Rising ground waters and natural springs (discharge of rising ground water and natural springs into surface water is only allowed if the groundwater is uncontaminated);

- Uncontaminated groundwater infiltration (as defined in Code of Federal Regulations (CFR) 40 CFR 35.2005 (20) and uncontaminated pumped groundwater;

- Flows from riparian habitats and wetlands;

- Emergency fire fighting flows (i.e., flows necessary for the protection of life and property do not require BMPs and need not be prohibited). However, appropriate BMPs to reduce the discharge of pollutants consistent with the Maximum Extent Practicable (MEP) standard must be implemented when they do not interfere with health and safety issues;

- Waters not otherwise containing wastes as defined in California Water Code Section 13050 (d); and

- Other types of discharges identified and recommended by the permittees and approved by the RWQCB.

The area-wide MS4 program includes public education and outreach (PEO) activities directed at reducing these discharges even if they are not substantial contributors of pollutants to the MS4 and/or the receiving waters.

The MS4 Permit requires the permittees to evaluate the authorized discharges listed above to determine if any are a significant source of pollutants to the MS4, and, if so, notify the RWQCB (*V.A.16*). If the City/County/District determines that any authorized discharge is a source of pollutants that exceed water quality standards, the area-wide MS4 program or the City/County/District shall either:

- Prohibit the discharge from entering the MS4;

- Allow the discharge but require that source control and treatment control BMPs are implemented to reduce or eliminate pollutants resulting from the discharge; or

- Require that the discharge be covered under a separate RWQCB or State Water Resource Control Board ("State Board") permit for discharge into the MS4.

2.3 Prohibited Discharges

Discharges from the MS4s shall be in compliance with the discharge prohibitions contained in Chapter 5 of the Basin Plan. In addition, as required by the MS4 Permit, the following discharges are prohibited (*IV*):

- In accordance with the requirements of federal regulations (40 CFR 122.26(d)(2)(i)(B) and 40 CFR 122.26(d)(2)(i)(F)), the City/County/District

prohibits illegal connections and illicit discharges (non-storm water) from entering the MS4 unless such discharges are either authorized by an NPDES permit or Waste Discharge Requirements issued by the RWQCB, or not prohibited in accordance with MS4 Permit Section V.A or as listed in LIP Section 2.2.

- Discharge of urban runoff from the City/County/District's MS4 to a waters of the U.S. containing pollutants, including trash and debris that have not been reduced to the MEP.

- The discharge of non-storm water into the MS4s unless authorized by a separate NPDES permit, granted a waiver or as otherwise specified in the MS4 Permit (Permit Section V.A or as listed in LIP Section 2.2).

- Discharges into and from the MS4s in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance, as that term is defined in Section 13050 of the State of California Water Code, into waters of the State.

- Discharge to Waters of the U.S. of any substances in concentrations toxic to animal or plant life.

- Discharge to Waters of the U.S., of any radiological, chemical, or biological warfare agent or high level radiological waste.

2.4 City/County/District MS4 Facilities

The MS4 facilities owned and operated by the City/County/District and regulated under the MS4 Permit are described as follows (INSERT general description):

Example Text: The City/County/District maintains a database of MS4 system attributes for the MS4 facilities that it owns and operates (see LIP Section 6.2). Appendix B includes a general map showing current MS4 facilities. The City/County/District regularly updates the database and map and identifies modifications and additions to its major MS4 facilities in the Annual Report.

The City/County/District's MS4 facilities currently include X miles of underground storm drains and X miles of open channels. Key open channels include (see Appendix B). The majority of flows from the City/County/District's MS4 discharge to the following Waters of the U.S: Insert waterbodies. The drainage map in Appendix B identifies the locations of major outfalls to Waters of the U.S.

2.5 Legal Authority

The legal authorities to control discharges to the MS4 have been established in both federal and state laws and regulations. Implementation of these regulations is through the MS4 Permit. The City/County/District has established the necessary legal authority to implement the MS4 Permit requirements within its jurisdictions. As required by the MS4 Permit, this authority includes having the ability to (*VII.A*):

- Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits. This includes having the authority to enter, sample, monitor, inspect, take measurements, photographs, videos, review and copy records, and require reports from industrial, commercial, and construction sites discharging into their MS4s;

- Recover the cost to correct a discharger's significant non-compliance or to respond to immediate and serious threat to water quality violations through various mechanisms, such as forfeiture of permit deposits, trust funds/bonds or other short-term funding sources to allow the City/County/District to immediately address and remedy serious water quality violations at construction, industrial, or commercial sites;

- Require the use of BMPs to prevent or reduce the discharge of pollutants into MS4s;

- Require documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4s;

- Prohibit the disposal of wastes onto public or private land that may cause water quality concerns, unless permitted by Waste Discharge Requirements (WDR) or a waiver by the RWQCB;

- Implement sanctions to ensure compliance, including, but not limited to: verbal and/or written warnings, notice of violation or non-compliance, monetary penalties, non-monetary penalties, bonding requirements, stop work or cease and desist Orders and/or permit denials/revocations/stays for non-compliance, civil or criminal prosecution. These sanctions shall be issued in a decisive manner within a predetermined timeframe, from the time of the violation's occurrence and/or follow-up inspection.

The following sections describe how this authority is established in the City/County/District.

2.5.1 Legal Authority Certification

Unless previously submitted during the third term MS4 Permit, the 2010 MS4 Permit requires the City/County/District to submit to the RWQCB a certification statement by January 29, 2011, signed by legal counsel, that the City/County/District has established all necessary legal authority (in accordance with 40 CFR 122.26(d)(2)(i)(A-F)) to comply with the requirements of the MS4 Permit (*VII.J*). The certification statement in Appendix C was submitted by the City/County/District on DATE.

The City/County/District reviews the adequacy of its ordinances, implementation, and enforcement response procedures annually to comply with the requirements of the MS4 Permit (*VII.G, K*). Any corrective actions or schedules for modifying local legal authority are reported in the area-wide Annual Report. The LIP is updated as

needed, to document changes to the City/County/District's legal authority to implement the MS4 Permit.

2.5.2 Ordinances

The City/County/District implements the MS4 Permit through its Stormwater Ordinance/Code (Insert appropriate legal designation) (Appendix D). Adopted in DATE, the Ordinance/Code includes the following key elements:

INSERT: List relevant Ordinances/Codes; or, Instead of listing, INSERT a table which lists and describes Ordinance/Code elements, e.g.:

EXAMPLE TABLE 2-X. Summary of City/County/District Ordinances/Codes

Ordinance Section Number	*Section Title*	*Description of Authority Granted*

Annually, the Position Title in the Agency/Department reviews the adequacy of the City/County/District's ordinances and associated implementation procedures. The findings of this review, along with supporting details and recommended corrective actions and schedules are submitted to the District for inclusion in the Annual Report (see LIP Section 9.3) (*VII.G, K*).

By January 29, 2013, the City/County/District will adopt and fully implement ordinances that specify control measures for known pathogen or bacterial sources such as animal wastes if those types of sources are present within their jurisdiction (*VII.D*).

2.5.3 Enforcement

All jurisdictions under the MS4 Permit have independently established the legal authority to enforce MS4 Permit requirements (*VII.A, B, C, I*). To support implementation of enforcement procedures throughout the area, the area-wide MS4 program's Management Committee developed and adopted the *Area-Wide Enforcement Response Guidance* ("Enforcement Guidance") in August 2003 (Appendix E). The Enforcement Guidance is applicable to jurisdictional area covered by the MS4 Permit, San Bernardino County within the Santa Ana River watershed.

Enforcement activities within the jurisdictional area of the City/County/District are directed and carried out by the Position Title within the Agency/Department. In general, enforcement activities are implemented as follows:

- City/County/District staff conducts an inspection and then informs the responsible party of any observed violations of the Stormwater Ordinance/Code. In most cases, the violation is corrected and no further enforcement action is

necessary. This approach focuses on eliminating the problem by educating violators and encouraging their cooperation rather than using more formal enforcement actions. Inspections are conducted proactively. As a result, many potential violations are identified and prevented from becoming actual violations (see LIP Section 4.4).

- If the initial effort to obtain compliance fails, enforcement actions may escalate to notices of correction, notices of violation, compliance orders, compliance time schedules, stop work orders, cease and desist orders, and fines. Extreme cases may result in referral to the RWQCB and/or the City/County district attorney's office, where additional penalties may be levied and/or criminal charges may be filed.

- The enforcement procedures include flexibility to impose an increased level of response at the outset, or out of the typical sequence depending on the severity and nature of the violation. In addition, enforcement may be accelerated if there is evidence of a clear failure to act or an increasing severity of the violation, e.g., from an illicit discharge.

The City/County/District has the responsibility for determining how to implement the Enforcement Guidance within its jurisdiction. In addition, the City/County/District documents progressive and decisive enforcement actions against violators of the local Stormwater Ordinance/Code (*VII.B*).

The Enforcement Guidance is periodically reviewed and, if necessary, revised by the area-wide MS4 program. In addition, by January 29, 2013, the area-wide MS4 program will develop an enforcement strategy for use by permittees to address mobile businesses (*X.D.7*) (also see LIP Section 4.2.4.2).

INSERT any modifications to the Enforcement Program by the local City/County/District.

2.5.4 Areas Outside City/County/District Jurisdiction

The City/County/District lacks legal jurisdiction over stormwater discharges into its MS4 from state and federal facilities, e.g., airports, California Department of Transportation (Caltrans) facilities, schools and hospitals, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by the RWQCB (*I.B*). The RWQCB does not hold the City/County/District responsible for such facilities or discharges and it is the responsibility of the RWQCB to coordinate with these entities outside of the City/County/District's jurisdiction (*I.B*). These entities are responsible for obtaining permits and/or implementing programs that are consistent with the requirements set forth by the RWQCB.

2.6 Internal MS4 Permit Implementation Requirements

This section documents how the City/County/District implements local MS4 Permit responsibilities internally. Figure 2-1 provides a City/County/District organizational chart depicting the various Agencies/Departments and key personnel (by position title) with responsibilities for implementation of the MS4 Permit within the City/County/District. Additionally, Table 2-1 provides a matrix showing each LIP element, the City/County/District Agency/Department with implementation responsibilities, the specific responsibilities of each Agency/Department unit, and the key personnel by position title.

2.7 Interagency Coordination

The City/County/District coordinates with County agencies to support implementation of the MS4 permit. Table 2-2 lists these agencies and show they support the City/County/District MS4 Permit program (INSERT/DELETE Table 2-2 elements, as needed, for City/County/District).

The San Bernardino County stormwater program also coordinates, as needed, with other counties in the watershed and regional planning agencies such as the Santa Ana Watershed Project Authority (SAWPA). This coordination most often occurs to support implementation of TMDL requirements that contain wasteload allocations (WLAs) applicable to MS4 facilities. Table 2-2 summarizes coordination activities currently ongoing in the County.

2.8 RWQCB Notification

Within 24 hours of discovery, the City/County/District provides oral or email notification to the RWQCB Executive Officer of non-compliant sites within its jurisdiction that are determined to pose a threat to human health or the environment (e.g., an oil spill that could impact wildlife, a hazardous substance spill where residents are evacuated, reportable quantities of hazardous substance spills defined in 40 CFR 117 & 302, etc.) (*XVII.A*). Following oral notification, the Position Title in the Agency/Department prepares and submits a written report to the Executive Officer within 10 days, detailing the nature of the non-compliance, any corrective action taken by the site/facility owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, site/facility owner responsiveness) and the type of enforcement action that will be carried out by the City/County/District. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the appropriate City/County/District database.

INSERT Figure 2-1. City/County/District Organizational Chart

EXAMPLE TABLE 2-1. MS4 Permit Implementation Responsibilities in City/County/District

MSWMP Program Element *(Key Permit Sections)*	Description of Responsibilities	Agency/Department	Key Personnel (By Position)
Program Management *(Sections III, V, VII, XVI, XIX)*	Participate in Management Committee/Subcommittee meetings		
	Oversee coordination of intra-agency and inter-agency MS4 Permit compliance		
	Develop and implement Implementation Agreement and annual cost sharing		
	Develop annual budget proposal and work with City/County/District governing board to secure program funding		
	Review and revise Enforcement Strategy		
	Maintain adequate legal authority, obtain legal certification		
	Notify RWQCB within 24 hours of non-compliant sites that are determined to pose a threat to human health or the environment an prepares follow-up written report for RWQCB submittal		
	Revise, where feasible, ordinances and codes		
	Participate in revisions and updates to the MS4 Solution Database, enter data into database and provide data summaries for Annual Report		
	Develop and implement training programs		
Illegal Connections/Illicit Discharges (IC/ID) *(Section VIII)*	Work with the Management Committee to update the MS4 program IC/ID Guidance		
	Coordinate with municipal, construction and industrial/commercial inspectors, and County Fire Hazmat and/or local Hazmat Teams on incident response and ensures notification requirements are followed; resolves IC/ID concerns		
	Follow-up on incident reports, track and report outcome of incidents		
	Implement enforcement activities, as needed		
	Implement dry weather monitoring requirements		
	Characterize trash, determine its main source(s) and develop and implement appropriate BMPs and control measures to reduce and/or eliminate the discharge of trash and debris		

EXAMPLE TABLE 2-1. MS4 Permit Implementation Responsibilities in City/County/District

MSWMP Program Element *(Key Permit Sections)*	Description of Responsibilities	Agency/Department	Key Personnel (By Position)
Municipal Inspection Programs(*Section X*)	Maintain industrial and commercial facility inventory		
	Notify RWQCB regarding industrial facilities requiring coverage under the State General Industrial Permit		
	Implement source reduction activities at targeted industrial and commercial facilities, including restaurants and mobile businesses		
	Implement industrial/commercial inspections including conducting follow-up inspections and implementing enforcement actions, as needed, and properly documenting inspection data		
	Verify coverage under the State General Construction Permit and report violations of the State General Construction Permit to RWQCB		
	Verify stormwater management requirements incorporated into projects not subject to the State General Construction Permit		
	Ensure proper notification occurs for cross-jurisdictional construction projects		
	Conduct construction site inspections		
	Maintain inspection program database		
	Maintain construction site database		
New Development and Redevelopment (*Section XI*)	Determine applicability of WQMP for proposed projects		
	Ensure compliance with California Environmental Quality Act and 401 Certification requirements		
	Review and approve WQMPs and Erosion and Sediment Control Plans (Note: local LIP may need to expand to parse out various WQMP review and approval responsibilities)		
	Revise the WQMP, as needed, to incorporate permit updates, including incorporation of low impact development principles		
	Update LIP to incorporate WQMP revisions and Road Project Guidance requirements		
	Implement project close-out procedures		
	Conduct post-construction BMP inspections		
	Maintain post-construction BMP database		

EXAMPLE TABLE 2-1. MS4 Permit Implementation Responsibilities in City/County/District

MSWMP Program Element *(Key Permit Sections)*	**Description of Responsibilities**	**Agency/Department**	**Key Personnel (By Position)**
Public Agency Activities (*Section IX, XIII, XIV, XV*)	Maintain municipal facility inventory		
	Implement fixed facility and field operations inspections, including conducting follow-up inspections and implementing enforcement actions, as needed, and properly documenting inspection data		
	Ensure municipal construction projects are in compliance with the State General Construction Permit (including preparing Stormwater Pollution Prevention Plans, implementing monitoring program, and WQMPs) and implementation of appropriate practices on street and road projects		
	Manage street sweeping program and document program activities		
	Manage landscape maintenance activities program and documents program activities		
	Ensure compliance with MS4 Permit requirements in Maintenance Areas and Materials Storage Areas		
	Manage inspection program for drainage facilities, including managing the inspection schedule, ensuring facilities are cleaned out as required, and periodically reviewing adequacy of inspection program		
	Coordinate with local sewering agencies to Implement management measures and procedures to prevent, respond to, contain, and clean up of all sewage and other spills		
	Coordinate with local sewering agencies and implement procedures to minimize infiltration of seepage from sanitary sewers into storm drains		
	Develop inventory of on-site wastewater treatment facilities (septic systems)		
	Implement on-site wastewater treatment program requirements		
	Ensure compliance with General De Minimus Permit		
	Maintain municipal facility inspection information in the MS4 Solution Database		

EXAMPLE TABLE 2-1. MS4 Permit Implementation Responsibilities in City/County/District

MSWMP Program Element *(Key Permit Sections)*	Description of Responsibilities	Agency/Department	Key Personnel (By Position)
Residential (*Section X.E*)	Manage targeted residential source reduction BMP programs		
	Coordinate with appropriate agencies to implement hazardous waste collection program		
	Support residential public education and outreach efforts		
	Develop pathogen source ordinance		
	Develop and implement stormwater management practices for Homeowner's Association and Management Companies		
	Develop and implement residential program to reduce discharge of pollutants from residential facilities		
Public Education and Outreach (*Section XII*)	Participate on Public Education Subcommittee		
	Conduct facility/site outreach activities		
	Conduct outreach to the general public		
	Implement school education programs		
	Maintain legible stencils or markers on all publicly maintained storm drain inlets		
	Respond to reports made to the program website or hotline		
Program Evaluation (*Section XVIII*)	Develop and submit information for inclusion in Annual Report		
	Participate in revisions to the MSWMP		
	Review and update LIP, as needed		
	Evaluate best BMP practices in the area and incorporate them into the stormwater management program as appropriate		
	Participate in preparation of Report of Waste Discharge		

EXAMPLE TABLE 2-1. MS4 Permit Implementation Responsibilities in City/County/District

MSWMP Program Element *(Key Permit Sections)*	Description of Responsibilities	Agency/Department	Key Personnel (By Position)
Monitoring (*Permit Attachment 5*)	Participate in development/update of water quality monitoring programs including development of Integrated Watershed Management Plan		
	Conduct routine monitoring activities		
	Implement TMDL monitoring program		
	Participate in regional monitoring programs		
	Develop/manage Quality Assurance Project Plans that support monitoring activities		
	Manage water quality data and prepare reports		
	Develop data for incorporation into Geodatabase; maintain information in geodatabase		
	Ensure monitoring staff receive proper training		
Watershed Management (*V.D, XI.B, XI.C*)	If applicable to permittee - Ensure local implementation of the Comprehensive Bacteria Reduction Plan		
	If applicable to permittee - Ensure local implementation of Big Bear Lake nutrient TMDL activities		
	If applicable to permittee - Ensure local implementation of Knickerbocker Creek bacteria management activities		
	Develop and implement Watershed Action Plan		
	Conduct review of Watershed Principles and Policies; coordinate internal discussions with senior City/County/District staff and make recommendations for updates to City/County/District documents, including General Plan		

Table 2-2. Inter-Agency Coordination with the Area-wide and City/County/District MS4 Permit Program

Cooperative Agency	Agency Program or Activity	MS4 Program Support
Area-Wide MS4 Program		
Santa Ana Watershed Project Authority (SAWPA)	Stormwater Quality Standards Task Force	Developing Basin Plan amendment (revised recreational uses, bacterial indicator water quality objectives, use attainability analyses) that will affect MS4 compliance requirements at outfalls to Waters of the U.S.
	Middle Santa Ana River Bacteria TMDL Task Force	Cooperative implementation of TMDL WLAs applicable to MS4 permittees in the MSAR watershed.
	Big Bear Lake Nutrient TMDL Task Force	Cooperative implementation of TMDL WLAs applicable to MS4 permittees in the BBL watershed.
Southern California Coastal Water Research Project (SCCWRP)	Stormwater Monitoring Coalition (SMC)	Coordinates regional collaboration through funding research activities that will improve the value of monitoring in making informed and effective decisions on how best to manage stormwater discharges. The SMC research agenda addresses primary technical issues in three categories: building a regional stormwater monitoring infrastructure; understanding stormwater mechanisms and processes; and identifying stormwater impacts in receiving waters.
San Bernardino County Flood Control District	San Bernardino County Stormwater Program	The District is the lead agency for management of area-wide MS4 Permit programs, which complement local programs. The area-wide MS4 program coordinates, as needed, with other counties in the watershed and regional planning agencies such as SAWPA
	MS4 backbone system – owns and maintains the backbone storm drain system for the watershed. Collects stormwater and non-stormwater flows from all jurisdictions.	
City/County/District MS4 Program *(NOTE: If program below provides area-wide support, it may be moved into upper part of table)*		
San Bernardino County Department of Public Health	*Housing/Property Improvement Program* – program promotes an environmentally safe and healthful dwelling environment for County residents and visitors. Program activities are directed to law enforcement and regulations pertaining to environmental quality, sanitation, maintenance, use and occupancy of housing and institutions.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*

Table 2-2. Inter-Agency Coordination with the Area-wide and City/County/District MS4 Permit Program

Cooperative Agency	Agency Program or Activity	MS4 Program Support
	Safe Drinking Water Program - protects drinking water resources by maintaining a comprehensive permitting system for water well construction and destruction, serving as the Local Primary Agency for small water systems, providing input into the land use process for the County, assuring that medical wastes are properly handled, stored, and disposed of by generators, and reviewing on-site sewage disposal conditions.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
	Vector Control Program - responsible for protection of public health by working to prevent the transmission of vector-borne disease to humans through the inspection, surveillance, and monitoring of known or suspected breeding and harborage places of vectors.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
	Food Protection Program - protects public health and safety as it relates to the retailing, wholesaling, and handling of food in the County through inspections, training and certification, and compliance investigations.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
San Bernardino County Fire Department – Hazardous Materials Division	*Emergency Response and Enforcement* **-** responds to hazardous materials emergencies throughout the County, participates in an interagency coalition with all cities in the County, and works with the County District Attorney's Environmental Crime Unit to prosecute illegal dumpers.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
	Field Services **-** inspects businesses that store hazardous materials, have underground storage tanks, or generate hazardous wastes.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
	Local Oversight Program (LOP) - responsible for overseeing the long-term clean-up of hazardous materials – mostly former underground storage tank sites. LOP also works with individual companies on a contractual basis to clean up more complex contamination.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
	Household Hazardous Waste Program – implements the program to accept household hazardous waste from homeowners throughout the County.	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*
INSERT other agencies as needed	*INSERT Program or Activity*	*INSERT how program supports local MS4 implementation activities – if none, program may be deleted*

2.9 Program Funding

Funding to implement the MS4 Permit program is comprised of two parts: (1) area-wide MS4 program funding, which supports implementation of Management Committees activities; and (2) local program funding, which supports program implementation within the City/County/District.

2.9.1 Area-Wide MS4 Program Funding

The area-wide MS4 program is funded by contributions from all permittees according to the cost-share methodology established in the Implementation Agreement. The Principal Permittee prepares an annual budget and presents this budget to the Management Committee for approval. This budget is divided into four program areas:

- *Monitoring* – Includes any sample collection and laboratory analyses implemented to fulfill MS4 Permit monitoring requirements, including those associated with implementation of TMDLs.
- *Public Education* – Provides funding for regional public outreach programs.
- *Program Management & Regulatory Activities* - Includes activities such as annual report preparation, California Stormwater Quality Association (CASQA) membership, program administration, participation in the TMDL development process and special projects such as the Stormwater Quality Standards Task Force, and permit application development.
- *Training* – Provides funding for any staff training or training conducted to implement the MS4 Permit.

2.9.2 City/County/District Funding

The City/County/District exercises its full authority to secure the resources it needs to meet the requirements of the MS4 Permit (*XIX.A*). Regardless, available annual funding is subject to decision of the Governing Board. The process by which the Agency/Department requests its annual funds to support the area-wide MS4 program and to implement the MS4 Permit locally is described as follows (INSERT budget adoption process in City/County/District)

> *Example Text: Agency/Department informs its Governing Board about program activities and funding requirements that are necessary to comply with MS4 Permit requirements and implement program activities within the City/County/District. A draft budget is prepared by DATE and submitted for consideration by the XXXXX. The final budget is approved by Governing Board by DATE each year.*

2.9.3 Annual Fiscal Analysis

Annually, the City/County/District prepares and submits a financial summary to Principal Permittee for inclusion in the MS4 Permit Annual Report (*XIX.B*). This

summary includes the following information, as related to funding the area-wide and local MS4 Permit programs:

- Expenditures for the previous fiscal year;
- Budget for the current fiscal year;
- Description of the source of funds; and
- Estimated budget for the next fiscal year.

2.10 MS4 Solution Database

To facilitate a unified approach for documenting and reporting stormwater program information, the area-wide MS4 program through the work of the Management Committee developed an MS4 Data Management System ("MS4 Solution Database") for the MS4 Permit program. The MS4 Solution Database allows the permittees to individually enter and manage their own MS4 data in a central database via the Internet. The Principal Permittee can then summarize and format the data to support preparation of the area-wide MS4 program's Annual Report (see LIP Section 9.3). The types of data managed by MS4 Solution include:

- Inspections of businesses, municipal facilities, and construction sites
- Illicit discharges and illegal connections
- Municipal maintenance records
- Public education/outreach events
- Staff training
- WQMPs
- Agency-specific policies, procedures and ordinances
- Management and subcommittee meetings
- Fiscal data

The City/County/District regularly enters MS4 program data in the MS4 Solution Database. The Position Title in the Agency/Department is responsible for entering all required data, providing appropriate quality assurance/quality control of data entries and working with the Principal Permittee to ensure that data are uploaded in a timely manner for use in preparation of the Annual Report (see LIP Section 9.3).

The MS4 Solution Database will be upgraded by the area-wide MS4 program during the permit term. By January 29, 2011, the database will be capable of tracking the following:

- Mobile business inventory (see LIP Section 4.2.3.2).
- Operation and maintenance of post-construction BMPs (see LIP Section 5.5).

2.11 Program Training

Training is a critical MS4 program element which ensures that all program staff regardless of jurisdiction receives the appropriate level of training to implement the requirements of the MS4 Permit (*XVI*). The training program is primarily implemented through the area-wide MS4 program. However, additional training activities occur internally within City/County/District. The following sections describe the area-wide training program, local implementation activities, and requirements to update the program.

2.11.1 Area-wide MS4 Training Program

The Training Subcommittee meets regularly to review training materials and, as needed, make recommendations to the Management Committee regarding training opportunities or the need to make revisions to the training program. The Position Title of the Agency/Department in the City/County/District participates on the Training Subcommittee and coordinates with City/County/District staff to ensure that they receive appropriate area-wide MS4 program training. The following sections describe the types of area-wide training available.

Municipal Activities Pollution Prevention Strategy Training Program

San Bernardino County has established an online regional stormwater management training program called the Municipal Activities Pollution Prevention Strategy (MAPPS) Training Program. Currently, this online program has five training modules that address the following program activities:

- Field maintenance
- Construction inspection
- Industrial/commercial inspection
- WQMP training
- General stormwater training

These modules provide training that covers the full range of stormwater program areas ranging from how to address IC/ID concerns to BMP practices that reduce the potential for pollutants to enter storm drains. The MAPPS training program is the key method used to provide MS4 stormwater program training; however, the online

training is supplemented by various other training efforts, including live presentations, on the job site visits and tailgate meetings by the permittees (see also Section 2.11.2). For those who have already completed the MAPPS modules, a refresher training course is provided at least once during each permit term to keep staff up-to-date on changing program requirements.

Training Materials Library

The Training Subcommittee operates a training library, which lends training packets to the permittees. Each training packet includes a training DVD, handouts, quizzes, certificates and sources for additional information. The topical areas covered by the training packets include: municipal field maintenance staff, construction BMP implementation and industrial/commercial BMP implementation.

Training Workshops

The Training Subcommittee periodically conducts or sponsors workshops to address specific training needs. These workshops are subject to availability and need, but examples of recently conducted workshops include:

- Certified Professional in Erosion and Sediment Control (CPESC) Training Workshop and CPESC exam review
- Certified Erosion, Sediment, and Storm Water Inspector (CSEWWI) Training and CESSWI exam review course
- Low Impact Development (LID) Workshop for Planners
- Webcasts from the Center for Watershed Protection
- American Public Works Association NPDES Webinars

2.11.2 City/County/District Training

Although training occurs primarily through the area-wide MS4 MAPPS training program, the City/County/District implements a number of activities to ensure that adequate training takes place at the local level (*XVI.H)*. The following sections describe these local activities.

Local Implementation

The Position Title in the Agency/Department is responsible for ensuring that the appropriate City/County/District staff receive the training required under the MS4 Permit and have the appropriate expertise and competencies required for program implementation. The Position Title implements these requirements by:

INSERT procedure

Supplemental Training Requirements (if applicable – if not delete)

The City/County/District supplements the area-wide MS4 training program through the implementation of the following activities:

INSERT information, if applicable:

Staff Training Requirements

All staff responsible for implementation of the MS4 Permit participates in the online MAPPS training program and supplemental training activities. Targeted staff includes those from departments and programs such as public works, parks and recreation, community services, and maintenance. In the City/County/District, the following positions are required to complete MS4 training:

INSERT list by Position Title and Agency/Department

Training Recordkeeping

The City/County/District maintains a written and/or electronic record of stormwater training provided to its staff (*XVI.E, I*). The sign-in sheets from all training events are retained. This information is summarized and included in material compiled annually for inclusion in the Annual Report.

2.11.3 Training Program Updates

The 2010 MS4 Permit includes a number of requirements for reviewing and updating the existing training program (*XVI.A*). The milestones are linked to expected completion dates of program revisions expected during the permit term. Training program changes will first be made to the area-wide MS4 program (see LIP Section 2.11.1). Subsequently, as appropriate, the local City/County/District training activities as well as this LIP will be updated. MS4 Permit training milestones include:

- By January 29, 2012, the MSWMP and this LIP will be updated to include revisions to the training program made to implement the requirements of the 2010 MS4 Permit (see also LIP Section 9.4 and 9.5). Expected program updates include elements related to the development of the LID program, revisions to the WQMP, and establishment of the LIPs by the City/County/District. In addition the revisions will include information regarding the training schedule, curriculum content, and defined expertise and competencies for stormwater program staff.

- By January 29, 2013, the MSWMP and this LIP will updated, as needed, to incorporate training program revisions made to implement permit requirements required for completion within 36 months of permit adoption, e.g., establishment of a program to reduce discharge of pollutants from residential facilities.

- By January 29, 2014, the MSWMP and this LIP will updated, as needed, to incorporate revisions to the training program made to implement permit requirements, if any, required for completion within 48 months of permit adoption.

Section 3
Illegal Connections/Illicit Discharges

The San Bernardino County MS4 Program's MSWMP (Section 3) describes the general Illegal Connection/Illicit Discharge (IC/ID) program elements applicable to the City/County/District's MS4. These elements include the public outreach program, which incorporates collection and proper disposal of hazardous waste (Section 3.2.1), field screening and system surveillance activities to identify potential incidents of IC/IDs (Section 3.2.2), requirements for reporting, responding to, and tracking IC/ID incidents (Section 3.2.3), enforcement measures (Section 3.2.4), and training activities to support IC/ID program implementation (Section 3.2.5).

3.1 Program Description

The existing IC/ID program relies on field screenings and inspections to locate signs of previous, current, and potential IC/IDs to the MS4 system. Activities focus on preventing new illegal connections and addressing illicit discharges. During the course of regular maintenance activities, the permittees conduct visual inspections of existing storm drain inlets, open channels, and basins to look for illegal connections and illicit discharges. Staff from a variety of agencies and departments, including storm drain maintenance crews, street sweeping personnel and others who regularly observe the storm drain system during scheduled maintenance activities (such as roadway, landscape and facilities staff) or through ongoing facility inspections (such as county and city fire and hazardous materials units, building department staff, code enforcement officers, and wastewater pretreatment program personnel), provide the necessary resources for identifying illegal connections and illicit discharges.

Possible signs of illicit discharges include non-stormwater flows, stains, deposited materials, and pipes or hoses. Staff are instructed and trained to look for signs of illegal connections and illicit discharges as they conduct their regular activities and immediately report or respond to any observed incidents. By increasing the stormwater pollution prevention awareness of city and county staff, the stormwater facilities receive a higher frequency of surveillance, and the local City/County/District can concentrate on follow-up, resolution, and enforcement. IC/ID discharge reports that cannot be resolved by local actions may be forwarded to the RWQCB.

3.2 City/County/District IC/ID Inspection Program

City/County/District implements IC/ID inspection activities within its jurisdiction as described in the following sections (*VIII.A*) (see also LIP Section 4 – Municipal Inspections Program):

3.2.1 MS4 Facility Inspections

Example Text: The Position Title in the Agency/Department inspects the MS4 facilities to identify illicit discharges. During inspections the Position Title looks for any discharge that appears unusual or produces a foul odor or coloring. If a potential illicit discharge is identified, the Position Title, who is familiar with the existing MS4 and the drainage patterns within the region, takes appropriates steps to identify the source of what appears to be an IC/ID, including XXXXX. If routine inspections indicate IC/IDs, the Agency/Department will investigate and eliminate or permit them within 120 calendar days of receipt of notice by its staff.

3.2.2 Construction Site Inspections

Example Text: Building Inspectors supplement the IC/ID program by conducting inspections at construction sites. The inspectors assure that no illegal connections occur during the installation phase of new storm drain lines. Illegal connections are prohibited by the City/County/District and are initially verified during the plan check process. Developers are required to provide videotaped documentation of new storm drains and connection into existing storm drains prior to issuance of Certificates of Occupancy. Building Inspectors are responsible for verifying conformance with the approved plans and conduct daily inspections throughout all construction sites. The inspectors will issue a Stop Work Order if an IC/ID is observed during an inspection and notify the Agency/Department. The Agency/Department will ensure that the IC/ID is eliminated; the Stop Work Order will cease after the IC/ID has been removed.

3.2.3 Industrial/Commercial Facility Inspections

Example Text: The Position Title (Agency/Department) assists the City/County/District with inspections of industrial/commercial facilities. If IC/IDs are encountered or suspected, the Agency/Department is notified. The Position Title will conduct a follow-up inspection within TIME hours of receipt of notice. If the follow-up inspection confirms an IC/ID, the Agency/Department will eliminate or permit the IC/ID within 120 calendar days.

3.3 Incident Reporting, Response, Tracking

City/County/District participates in the regional stormwater hotline number operational within San Bernardino County at 1-800-WASTE-18 (800-927-8318), which deals with the reporting of IC/IDs and related items (*VIII.E*, *XII.G*). Potential violations may also be reported by filing an online report available at the area-wide MS4 program website: www.sbcountystormwater.org/pollution_reporting.php. Reports submitted via the website reporting form are emailed directly to the Principal Permittee, who then forwards the report to the responsible permittee jurisdiction.

Reports of illicit discharges may originate from a number of different sources and may be reported to a number of different agencies (*VIII.E*). Potential sources and agencies include private citizens, agency maintenance and inspection staff, police and fire department, County HazMat, local and national hotlines, and emergency services

(911). In the case of fire departments, the reporting and response agency may be the same. In general, incoming calls for hazardous or unknown discharges are routed to a county or local hazardous waste response unit. Calls for sewage spill and known non-hazardous discharges are referred to the appropriate City/County/District staff. Reported spills and discharges are tracked in the MS4 Solution Database (*VIII.D*) (see LIP Section 2.10) and reported in the Annual Report (see LIP Section 9.3).

INSERT how an incident report is handled in the City/County/District:

Example Text: Upon receiving notification, the Position Title of the City/County/District immediately (but within 24 hours of receipt of notice) investigates all spills, leaks, and/or other illicit discharges to the MS4. Based upon the field assessment, the Position Title notifies the appropriate Agency/Department for follow-up actions. The Position Title notifies the RWQCB as required by Section XVII of the MS4 Permit (see LIP Section 2.8); information regarding the incident is recorded in the MS4 Solution Database and included in the Annual Report.

3.4 Enforcement

IC/ID enforcement activities are carried out according to the area-wide Enforcement Guidance and City/County/District requirements (*VIII.A*) (see LIP Section 2.5.3).

3.5 Monitoring

The MS4 Permit requires that the City/County/District continue to characterize trash, determine its main source(s) and develop and implement appropriate BMPs and control measures to reduce and/or to eliminate the discharge of trash and debris to Waters of the U.S. to the MEP (*VIII.F*). The Position Title in the Agency/Department implements this requirement by INSERT procedure.

The 2010 MS4 Permit requires that the area-wide MS4 program review and update its dry and wet weather reconnaissance strategies to identify and eliminate IC/IDs. As part of this effort, the MS4 Permit includes two new monitoring requirements (*Permit Attachment 5, IV.B.3*) (see LIP Section 10.5).

3.6 Non-Jurisdictional IC/IDs

If the City/County/District identifies an IC/ID that is outside of its jurisdictions, the Position Title notifies the RWQCB (*X.A.8, XVII.A*).

3.7 IC/ID Database

The City/County/District maintains a database of permitted and unpermitted connections and dry weather monitoring and records IC/ID incident response information in the MS4 Solution Database (including IC/IDs detected as part of field monitoring activities) (*VIII.D*). This information is updated on an ongoing basis and summarized in the Annual Report (see LIP Section 9.3). See LIP Section 2.10 for description of MS4 Solution Database. The Position Title in the Agency/Department is responsible for maintaining and updating this database as needed.

3.8 IC/ID Reporting

The City/County/District provides an annual review of IC/ID program activities to the Principal Permittee for inclusion in the Annual Report (see LIP Section 9.3). This review includes:

- Evaluation of control measures to reduce and/or eliminate the discharge of trash and debris to the MEP to determine if the program needs to be adjusted.
- Reported IC/ID incidents and how such incidents were resolved.
- Dry weather monitoring results.

3.9 IDDE Program Development

The 2010 MS4 Permit requires that the area-wide MS4 program develop a proactive illicit discharge detection and elimination program (IDDE) (*VIII.A, B*). The permit recommends that the permittees base this program revision on *Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments* (developed for the Environmental Protection Agency (EPA) by the Center for Watershed Protection). The program must specify procedures to conduct various focused, systematic field investigations, including outfall reconnaissance surveys, indicator monitoring and tracking of discharges to their sources. The IDDE program must include the use of Geographical Information Systems (GIS) for tracking, and aerial photography to discover IC/IDs, in addition to existing programs of inspection, education and watershed analysis.

The area-wide MS4 program will complete the IC/ID program update during the MS4 Permit term. When completed, this LIP will be updated, as appropriate to identify the staff positions responsible for the various components of the IDDE program (*VIII.C*).

3.10 Training

The City/County/District receives IC/ID training as part of the area-wide MS4 Permit training program (*XVI*) (see LIP Section 2.11).

Section 4
Municipal Inspection Programs

4.1 Program Description

Industrial and commercial businesses as well as construction activities can potentially contribute varying types and amounts of pollutants to the MS4 system through poor housekeeping and construction practices. As part of the overall stormwater management plan, stormwater pollution from industrial and commercial sources and construction activities is controlled by providing education on prevention methods to reduce or eliminate pollutant discharges to the storm drain system. Education and outreach activities are supplemented with inspections and enforcement.

The MS4 Program MSWMP (Section 4) describes the program elements designed to manage pollutants entering the MS4 from sources associated with industrial or commercial properties. MSWMP Section 5 describes program elements designed to reduce pollutants from construction activities carried out by private developers. Key elements include source identification (Section 4.2.1) and source reduction (Section 4.2.2) activities, public outreach to industrial and commercial businesses (Section 4.3), inspection activities (Section 4.4), and coordination with the State General Industrial Permit requirements (Section 4.5).

4.2 Industrial and Commercial Activities

The MS4 Permit requires the City/County/District to identify industrial and commercial facilities that have a reasonable potential to contribute pollutants to the MS4 (*X.A.1*). The following sections describe how the City/County/District manages these facilities to comply with MS4 Permit requirements.

4.2.1 Facility Inventory

The City/County/District maintains a comprehensive inventory of industrial and commercial businesses that have the potential to be significant sources of pollutants to the MS4 (*X.A.1*). This inventory, which has been developed over many years, is documented in the MS4 Solution Database (see LIP Section 2.10). Information included in the database for industrial or commercial facilities includes:

INSERT *Example Text:*

- *Business name/owner*
- *Physical/mailing address*
- *General Permit Waste Discharge Identification Number (if any)*
- *Standard Industrial Code (SIC) Code(if applicable)*
- *Facility-specific information (e.g., potential pollutants)*
- *Subwatershed*
- *GIS information (in appropriate format)*
- *Other comments/notes*

The City/County/District regularly updates its database of potential industrial/commercial sources by INSERT process.

> *Example Text: The City/County/District regularly receives information regarding new businesses (industrial or commercial) started and others that go out of business. Local sources for this information include the Business Licensing and Permitting Offices and Chamber of Commerce. The RWQCB is notified of any new or closing businesses that are likely to be subject to the State General Industrial Permit.*

4.2.2 Industrial Facilities

For the most part, industrial facilities are subject to the requirements of the State General Industrial Permit (*II.E*). It is the responsibility of the facility to file a Notice of Intent (NOI) with the RWQCB and comply with all general permit requirements for their particular facility type. Facilities subject to the State General Industrial Permit and the industrial facility requirements under the MS4 Permit are identified by a variety of information sources including (EDIT as appropriate to City/County/District):

- The State Board database of businesses covered by the State General Industrial Permit;
- Hazardous materials inventories maintained by the fire or HazMat departments;
- Lists of businesses subject to the local wastewater utility's industrial pretreatment program;
- City business license records, if applicable;
- Commercially available business listings (e.g., the Dun & Bradstreet database); and
- Telephone listings (phone book).

Facilities covered by the State General Industrial Permit are not under the City/County/District's jurisdiction and enforcement of the State General Industrial Permit is the responsibility of the RWQCB (*II.E*). However, the City/County/District conducts outreach activities and site visits, and cooperates with RWQCB enforcement efforts through the following activities:

- Helping identify new and existing businesses that require coverage under the State General Industrial Permit and identifying businesses that have ceased operation and should be removed from the permit list;
- Sharing summary, and if requested, detailed outreach, site visit, and inspection information;

- Initiating abatement, cleanup, and follow-up activities for observed illicit discharges; and
- Notifying the RWQCB of State General Industrial Permit infractions and recommending enforcement actions, where appropriate.

4.2.3 Commercial Facilities

Commercial facilities, for the most part, do not require coverage under the State General Industrial Permit. However, the RWQCB has determined that the following types of commercial facilities (as stated in the MS4 Permit) have a reasonable potential to discharge pollutants to the MS4 (*X.D*):

- Transport, storage or transfer of pre-production plastic pellets;
- Automobile mechanical repair, maintenance, fueling or cleaning;
- Automobile and other vehicle body repair or painting;
- Automobile impound and storage services;
- Airplane repair, maintenance, fueling or cleaning;
- Marinas and boat repair, maintenance, fueling or cleaning;
- Equipment repair, maintenance, fueling or cleaning;
- Pest control service facilities;
- Eating or drinking establishments, including food markets and restaurants;
- Cement mixing, concrete cutting, masonry facilities;
- Building materials retailers and storage facilities;
- Portable sanitary service facilities;
- Painting and coating;
- Animal facilities such as petting zoos and boarding and training facilities;
- Nurseries, greenhouses, botanical or zoological gardens;
- Landscape and hardscape installation;
- Pool, lake and fountain cleaning; and
- Golf courses, parks and other recreational areas/facilities.

Therefore, as required by the MS4 Permit, the City/County/District maintains an inventory of RWQCB required commercial facilities in the MS4 Solution Database (*X.A.1*) (see LIP Sections 2.10 and 4.2.1). Outreach, site visits, and inspections are conducted on a regular basis to ensure that the facilities are not contributing to stormwater pollution. Enforcement is by the local agency.

> *INSERT if applicable: City/County/District has also determined that the following commercial facility types also have a reasonable potential to discharge pollutants to the MS4: INSERT List*

4.2.4 Source Reduction Programs

The City/County/District relies on a combination of commonly accepted source reduction practices (i.e., BMPs) applicable to all industrial/commercial facilities and BMPs targeted to specific facility types. When selecting BMPs to reduce pollutants from industrial and commercial properties, the area-wide stormwater program relies on the CASQA Stormwater BMP Handbooks, which include a comprehensive list of BMPs applicable to industrial/commercial facilities. The information in these handbooks may be supplemented by other sources, for example, EPA materials. In addition to the direct implementation of BMPs on-site, other area-wide source reduction activities include:

- Pollution prevention measures and public education;
- Source identification and prioritization;
- Monitoring and inspection of industrial/commercial sites (sites not under the jurisdiction of the City/County/District are the responsibility of the RWQCB);
- Verification of coverage under the State's General Industrial Permit;
- Enforcement of local ordinances and other requirements for industrial/ commercial sites;
- Procedures for reporting non-compliance; and
- Verification of compliance with WQMP requirements.

> *INSERT if applicable: The City/County/District supplements these area-wide source reduction activities by implementing the following activities: INSERT activities*

The MS4 Permit currently targets restaurants (*X.D.8*) and mobile businesses (*X.D.6, 7*) for specific source reduction activities. The RWQCB or City/County/District may implement additional source reduction requirements in the future to manage pollutants discharged to the MS4 (e.g., to comply with TMDL requirements). This LIP will be revised to incorporate these additional requirements when they are determined.

4.2.4.1 Restaurants

The MS4 permittees maintain a program specifically targeted to restaurant activities that have the potential to discharge pollutants to the MS4. At a minimum, inspections implemented under this program focus on the following (*X.D.8*):

- Oil and grease disposal, to verify that these wastes are properly contained and protected from exposure to stormwater and not poured into a trash bin, sewer, parking lot, street or adjacent catch basin;
- Trash bin areas to verify that these areas are kept clean by dry sweeping or mopping, the bin lids are closed and are not over-filled, dumpster drain plugs are installed, and the bins are not used for disposing of liquid wastes;
- Trash compactors, to identify leaking containers that may need new rubber seals;
- Parking lot, alley, sidewalk and street areas to verify that floor mats, filters and garbage containers have not been washed in those areas and that no wash water is being disposed of into those areas;
- Parking lots, to verify that they have been cleaned by sweeping, not by hosing down, and that the facility operator is using dry methods for spill cleanup; and
- Existing devices designed to separate grease from wastewater (e.g., grease traps or interceptors) to ensure adequate capacity and proper maintenance is currently being performed under the Fats, Oils and Grease (FOG) program (the FOG inspections conducted under the Statewide Sanitary Sewer Overflow [SSO] Order (Order No. 2006-003) may be substituted for this inspection).

The City/County implements restaurant inspections using a standardized restaurant inspection form (Appendix F) and by conducting the following activities: INSERT text

> *Example Text: The Position Title in the Agency/Department is responsible for the implementation of the restaurant inspection program. All restaurants subject to these requirements are inspected INSERT Frequency. If a restaurant is not in compliance with MS4 Permit and State SSO Order requirements, the following steps are taken: INSERT Steps. The facility is re-inspected within TIME to verify the facility is in compliance. If the restaurant remains out of compliance, then enforcement procedures are implemented (see LIP Section 2.5.3).*
>
> *NOTE: Elements to consider incorporating into above text include (1) role of the San Bernardino County Public Health Agency in restaurant inspections; (2) potential to conduct FOG inspections as part of the Statewide SSO Order (Water Quality Order No. 2006-0003) instead of the MS4 Permit; (3) linkage to Health and Safety code violations.*

4.2.4.2 Mobile Businesses

The City/County currently addresses the potential for pollutant discharges to the MS4 from mobile businesses through implementation of general source reduction practices. However, the 2010 MS4 Permit establishes new targeted source reduction requirements for mobile businesses (*X.D.6, 7*). The area-wide MS4 program will work collaboratively to develop a program that addresses the following MS4 Permit requirements:

- By January 29, 2013, the City/County is required to notify the following types of mobile businesses operating within the City/County regarding the minimum source control and pollution prevention measures that they must implement within three months of notification (*X.D.6*):
  - Mobile auto washing/detailing;
  - Equipment washing/cleaning;
  - Carpet, drape, and furniture cleaning; and
  - Mobile high pressure or steam cleaning.
- By January 29, 2013, the area-wide MS4 program will develop an enforcement strategy to address mobile businesses (*X.D.7*).

To support implementation, the City/County/District will develop and distribute BMP Fact Sheets to the mobile businesses identified for notification (*X.D.7*). At a minimum, these fact sheets will include laws and regulations dealing with urban runoff and discharges to storm drains; appropriate BMPs for implementation, and proper procedures for disposing of wastes generated from each mobile business. Additionally, the area-wide MS4 program will develop a module in the MS4 Solution Database to track mobile businesses, with all jurisdictions having access to the same data (see LIP Section 2.10).

4.3 Construction Activities

Proper implementation of BMPs during construction activities is essential for reducing water quality impacts. Though the time required for construction is minimal compared to the life of a project, construction activities can be responsible for a majority of the impact if stormwater runoff issues are not handled properly. At a minimum, the City/County/District's implementation program is consistent with the latest version of the State General Construction Permit and all applicable provisions of the federal effluent limitations guidelines (*X.B.5*).

To reduce pollutants in runoff from construction sites during all construction phases, the permittees have implemented a program that addresses:

- Pollution prevention measures and public education;

- Grading ordinance and other local requirements;
- Verification of coverage under the State's General Construction Permit;
- Prioritization and inspection of construction sites;
- Procedures for reporting non-compliance;
- Verification of compliance with the Project WQMP.

The following sections describe City/County/District construction management activities in more detail.

4.3.1 Construction Permit Requirements

All construction projects are subject to some level of permit oversight for managing runoff from the construction site. The requirements vary depending on whether the project is subject to the State General Construction Permit.

Projects Covered by State General Construction Permit

Many types of construction activities are required to comply with the State General Construction Permit issued by the State Board (Order No. 2009-0009-DWQ). It is the responsibility of the project proponent to determine applicability of this permit to their proposed project (see Section II.B of the State General Construction Permit); however, the following list describes in general the types of construction activities subject to the State General Construction Permit:

- Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre; or construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale of one or more acres of disturbed land surface.
- Construction activity related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to EPA regulations, such as dairy barns or food processing facilities.
- Construction activity associated with linear underground/overhead projects including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower

installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

- Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.

- Stormwater discharges from dredge spoil placement that occur outside of U.S. Army Corps of Engineers jurisdiction (upland sites) and that disturb one or more acres of land surface from construction activity (Construction projects that intend to disturb one or more acres of land within the jurisdictional boundaries covered by a CWA Section 404 Permit should contact the RWQCB to determine whether this federal permit applies to the project).

It is the responsibility of a project proponent to comply with the requirements of the State General Construction Permit including filing all required construction notices. Although the City/County/District does not have jurisdictional authority over the State General Construction Permit, the City/County/District has implemented the following procedures as part of its WQMP review and approval process to support compliance with this permit (*X.A.7*):

> *Example Text: The Position Title in the Agency/Department requires that the project proponent provide a copy of the State Board WDID notification as proof that an NOI was filed with the State Board prior to issuing grading permits. In addition, a completed Stormwater Pollution Prevention Plan is required as part of the final WQMP submittal.*

Projects not Covered by State General Construction Permit

For projects that do not require coverage under the State General Construction Permit, the City/County/District ensures that the following requirements are defined on project permit plan cover sheets as either general or special notes:

- All grading projects, regardless of size, will require an erosion control plan to prevent sediment from entering storm drains or waterbodies.
- Construction sites shall be maintained by implementation of BMPs to the MEP.
- The following discharges into the storm drain system are prohibited:
  - Discharges that could have an impact on human health or the environment, cause or threaten to cause pollution, contamination, or nuisance;
  - Discharges that exceed any applicable water quality standard contained in the Basin Plan; and discharges containing a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Parts 117 and 302; and
  - Materials that can cause or contribute to pollution or a violation of any applicable water quality standard include, but are not limited to, sediments, solid or liquid chemicals spills; wastes from paints, stains, sealants, glues,

limes, pesticides or herbicides, wood preservatives or solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, or hydraulic, radiator and battery fluids; fertilizers; vehicle/equipment wash water or concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing; and chlorinated potable water line flushings.

- Unless specifically exempted or authorized by a stormwater permit, all non-stormwater discharges require prior approval by the local stormwater agency or the State Board.
- During construction, temporary storage of such materials, identified above, must occur in a designated area, physically separated from potential stormwater run off, with ultimate disposal in accordance with local, state, and federal requirements.
- Dewatering of contaminated groundwater, or discharging contaminated solids via surface erosion is prohibited.

The Position Title in the Agency/Department is responsible for ensuring that these requirements are included in the project specifications.

City/County/District Construction Projects

The MS4 Permit authorizes the discharge of stormwater runoff from construction projects that may result in land disturbance of one (1) acre or more (or less than one acre if it is part of a larger common plan of development or sale which is one acre or more) that are under ownership and/or direct responsibility of the City/County/District (*XIV.A*). LIP Section 6.6 describes the requirements for compliance with this MS4 Permit provision.

Projects Outside of City/County/District Jurisdiction (*VII.F*)

Development projects outside of the City/County/District's jurisdiction may plan to connect to the MS4 facility owned and managed by the City/County/District. In addition, development projects within the City/County/District may result in a connection to an MS4 facility owned by another jurisdiction. When cross-jurisdictional connections have the potential to occur, the City/County/District implements the following procedures to ensure compliance with applicable MS4 Permit requirements (*III.A.2.e, III.B.3.i, XI.A.6*):

> *Example Text: When the City/County/District becomes aware of a project that crosses jurisdictional boundaries, the Position Title in the Agency/Department implements the following notification procedures:*
>
> - *Projects impacting City/County/District MS4 system – The City/County/District notifies the owner of other MS4 systems outside its jurisdiction of the requirement to comply with the post-construction requirements in the State's General Construction Permit (Order No. 2009-0009-DWQ) and this*

City/County/District's MS4 program. A copy of the notification is provided to the RWQCB.

- *Projects impacting adjacent or MS4 systems – When reviewing and approving the WQMP for the development project in the City/County/District, the Position Title notifies the owner of the MS4 system that has the potential to receive urban runoff from the project and requests input on the proposed Project WQMP to ensure that any necessary project conditions are included prior to approval of the WQMP. The RWQCB is notified as well. If any project conditions are received, the Position Title incorporates them prior to finalizing the WQMP and issuing permits for construction.*

4.3.2 Construction Site Database

By DATE, the Position Title in the Agency/Department in the City/County/District will develop and maintain an inventory of all construction sites within its jurisdiction for which building or grading permits are issued and activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar or stucco (*X.B.1*). This inventory will be stored locally in the Agency/Department database and area-wide in the MS4 Solution Database (see LIP Section 2.10). The types of information that may be included in this inventory include:

Example Text:

- *Project name, location (GIS coordinates, where applicable), type of development*
- *Subwatershed(s) where project is located*
- *Waterbody/MS4 facility where runoff drains to*
- *Site-specific information (e.g., activities that may generate pollutants and potential pollutants)*
- *Other comments/notes*

The Position Title in the Agency/Department is responsible for entering construction project data in a timely manner. The Position Title receives the data from:

INSERT process for how data gets received and entered into the database.

4.4 Inspection Programs

The following sections summarize how the City/County/District conducts inspections of industrial and commercial businesses of all types and construction activities to ensure compliance with MS4 Permit requirements (*X*).

4.4.1 Industrial and Commercial Facility Inspections

Program Overview

*NOTE: the following **Program Overview** text is consistent with the MSWMP – It may be edited as needed to correspond to local City/County/District program.*

The goal of the inspection program is to encourage business owners and municipalities (or the County) to work together to develop and implement appropriate and practicable stormwater management BMPs. This program activity combines outreach with educational site visits to minimize duplicated efforts and prioritize sites for further inspection and follow-up investigations.

Outreach and inspection activities to industrial and commercial businesses can be a time-consuming, expensive, and difficult process, especially if there are numerous facilities and a limited number of qualified inspectors. However, most industrial and commercial properties in the permit area are already subject to one or more inspection programs. Therefore, instead of hiring additional inspectors to address only stormwater management issues, the City/County/District uses existing programs to conduct outreach and inspection activities at industrial and commercial facilities. The City/County/District implements stormwater-related inspections in the following manner:

> *Example Text: The City/County/District has developed a responsibility matrix that explains which Agencies/Departments are responsible for industrial and commercial inspections in the City/County/District. This matrix is periodically reviewed and updated, if needed, by Position Title in the Agency/Department. INSERT Responsibility Matrix (Optional Table 4-1).*

When the responsible position initiates contact with an industrial or commercial business, a four-phased process is followed (Figure 4-1):

Phase 1: Communication with Target Businesses - The first phase of the program focuses on outreach by communicating with and providing outreach materials to each targeted business (*XII.F*). Typically, the responsible position calls each targeted business and speaks with an appropriate representative about several topics, including the following:

- Business name and address
- Business activities at the site and applicable SIC code(s)
- Potential sources of stormwater pollution
- Potential impacts to the MS4
- Appropriate BMPs
- Criteria for coverage under the State's General Industrial Permit
- How and where to obtain additional assistance

The responsible position follows-up the initial communication by sending a business-specific package of applicable BMPs and general stormwater information (although for new businesses this outreach element may be accomplished in the

City/County/District over the counter during the INSERT Process, e.g., business license application process).

Phase 2: Education Site Visits (if needed) - The second phase of the outreach and inspection program consists of an educational site visit. Visits are conducted by the appropriate position as identified in the City/County/District's responsibility matrix (Table 4-1). The purpose, activities, and handout materials for the site visits are essentially the same as for the initial outreach; however, the City/County/District staff also performs a visual inspection of the site to accomplish the following:

- Verify business location, name, contact person, and status (active, closed)
- Confirm the business type, activities, and SIC code
- Verify Waste Discharge Identification (WDID) number, if applicable, and confirm that a Stormwater Pollution Prevention Plan (SWPPP) has been prepared (State General Industrial Permit sites only)
- Look for outdoor storage areas and other outdoor activities that have the potential to cause stormwater pollution
- Look for proper BMP selection and implementation
- Look for signs of ongoing or past illicit discharges
- Establish priority for follow-up inspections or enforcement action (none, low, medium, high)

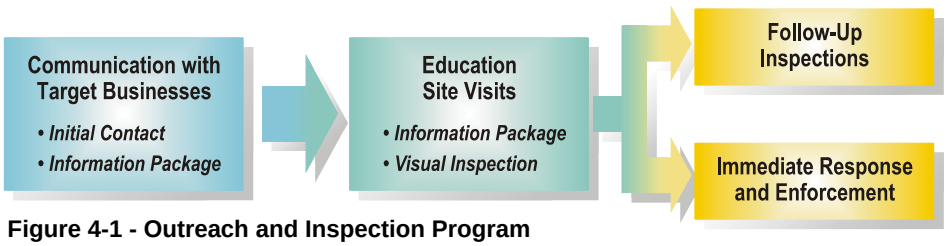


Figure 4-1 - Outreach and Inspection Program Phases

Phase 3: Follow-up Inspections (if needed) - Follow-up inspections are conducted as needed based on the results of the educational site visits. Follow-up inspections are conducted by the Position Title of the Agency/Department or other trained stormwater inspection staff in the Agency/Department. Follow-up inspections focus first on eliminating existing discharges, second on providing additional assistance to the business on regulatory compliance, and third on enforcement actions.

Phase 4: Immediate Response and Enforcement (if needed) - In some cases, immediate response and enforcement action may be necessary. Where enforcement actions are required, the City/County/District's enforcement response varies depending on the

type and frequency of the infraction (see LIP Section 2.5.3 and Appendix E for enforcement procedures).

Documentation on each outreach contact, educational site visit, and any necessary follow-up inspection/enforcement activity is provided to the City/County/District Position Title. Annually, summary information is provided to the Principal Permittee for inclusion in the Annual Report (see LIP Section 9.3).

Facility Prioritization

Existing Basis for Prioritization

The City/County/District currently prioritizes facility inspections based on the facility's rating as a high, medium, or low threat to water quality (*X.C.1, X.D.3*). A rating is applied to all commercial and industrial facilities. This rating corresponds to the potential for a site or facility to adversely impact water quality. This prioritization is based on such factors as type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, compliance history, facility size, proximity and sensitivity of receiving waters, and any other relevant factors. The MS4 Permit currently requires that the following facilities be ranked as a high priority for inspection:

- Facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA);
- Facilities that handle or generate pollutants for which the receiving water is impaired;
- Facilities that have a demonstrated or significant potential to release pre-production plastic or nurdles into the environment; and
- Facilities with a high potential for or history of unauthorized, non-storm water discharges.

In addition to the MS4 Permit criteria, the City/County/District also considers the following factors for ranking industrial and commercial facilities as high, medium or low priority:

- *Commercial* – Rankings are based on such factors as the type, magnitude, and location of the commercial activity, potential for discharge of pollutants to the MS4, and any history of unauthorized non-storm water discharges.
- *Industrial* – Rankings are based on such factors as type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of receiving waters and any other relevant factors. A high priority is assigned to facilities with a high potential for or history of unauthorized, non-storm water discharges.

The City/County/District inspects facilities ranked high, medium or low according to the following frequency (*X.C.3, X.D.4*):

- High priority (high risk) facilities are to be inspected at least once a year;
- Medium priority (or medium risk) sites are to be inspected at least once every two years; and
- Low priority (or low risk) sites are to be inspected at least once per permit cycle.

Facility Inspection Procedures

The purpose of an inspection is to ensure that the facility is in compliance with City/County/District ordinances, MS4 Permit requirements, and any other permits applicable to the facility (*X.A.2, X.C.2*). The City/County/District need not inspect facilities already inspected by RWQCB staff if the inspection was conducted within a specified time period (RWQCB staff inspection information is available at www.ciwqs.ca.gov) (*X.A.10*). When the appropriate responsible position in the City/County/District conducts the inspection, the following activities are completed:

- Ensure the site has obtained necessary permit coverage (if site is operating without proper permits it will be deemed in significant non-compliance, see below);
- Review of the site's material and waste handling and storage practices;
- Review of written documentation of pollutant control BMP implementation and maintenance procedures;
- Gather digital photographic documentation of water quality violations, and/or evidence of past or present unauthorized non-storm water discharges; and
- Report of enforcement actions issued at the time of inspection, if necessary.

If a site is operating without proper permits it is deemed to be in significant non-compliance (*X.A.8*). The Position Title in the Agency/Department uses the following process to verify that facilities have obtained required permits:

INSERT Process

If necessary, the City/County/District implements enforcement measures consistent with its Enforcement Guidance (see LIP Section 2.5.3 and Appendix E) to bring the facility into compliance. The City/County/District reports facilities operating without proper permits to the RWQCB in writing within 14 calendar days of discovery (*X.A.8*).

The City/County/District responds to complaints received from third parties in a timely manner to ensure that industrial and commercial sites are not a source of

pollutants in the MS4 and receiving waters (*X.A.11*). As needed, the Position Title in the Agency/Department prioritizes complaints received based on:

> *INSERT priority, e.g., the threat to the environment (water quality/public health), volume of potential illicit discharge, description of the problem, etc.*

Based on this prioritization, the response time for evaluating the complaint is as follows:

> *INSERT expected response time to complaints or incorporate with prioritization information above.*

Documentation of all inspection activities is provided to the City/County/District Position Title. Annually, summary information is provided to the Principal Permittee for inclusion in the Annual Report, including the rationale for downgrading or upgrading the priority ranking of an industrial or commercial facility (if applicable).

The Position Title in the Agency/Department maintains hard or electronic copies of inspection documentation and can make available upon request all information related to these inspections, including inspection reports, photographs, videotapes, enforcement actions, notices of correction issued to dischargers and other relevant information (*X.A.3, X.A.9*). This information is incorporated into the inspection program database (see LIP Section 4.4.4).

4.4.2 Construction Site Inspections

The City/County/District conducts regular inspections of construction sites (including public projects) to ensure compliance with the MS4 Permit and State General Construction Permit requirements (*X.B.3, X.B.5*).

Inspection Prioritization

Inspections are prioritized based on whether the activity constitutes a high, medium or low threat to water quality based on factors, which include but are not limited to: soil erosion potential, project size, proximity and sensitivity of receiving waters and any other relevant factors (*X.B.2*). At a minimum, high priority construction sites include:

- Sites of 50 acres and greater;
- Sites over one acre that are tributary to impaired waters listed on the 303(d) list for sediment or turbidity impairments; and
- Site specific characteristics and associated risk characterization (e.g., as described in the State General Construction Permit).

At a minimum, medium priority sites include those where the construction activity will result in 10 to 50 acres of disturbed soil. Sites not classified as medium or high priority are given a low priority for inspection.

Inspection Frequency

Construction site inspection frequency is based on site priority and season (*X.B.4.a*). During the wet season (October 1 through May 31), the City/County/District implements the following inspection frequency:

- High priority sites are inspected in their entirety once a month;
- Medium priority sites are inspected at least twice during the wet season; and
- Low priority sites are inspected at least once during the wet season.

Regardless of the priority, when BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of once every week is maintained until all BMPs or BMP activities are in compliance (*X.B.4.a*).

During the dry season (June 1 through September 30), all construction sites are inspected at a frequency sufficient to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-stormwater discharges are prevented (*X.B.4.b*).

Inspection Process

The City/County/District uses an inspection checklist to implement inspections at construction sites (*X.B.3*). This checklist includes the following key elements (Appendix G):

> *(NOTE: the permit requires development of this checklist – it has been assumed that if not already done, this checklist will be developed by the LIP submittal date – the following list is the minimum MS4 Permit requirement for the checklist; it should be modified to reflect what is actually in the City/County/District checklist)*

- Verification of coverage under the State General Construction Permit, e.g., NOI or WDID number during the initial inspection.
- If a change in ownership has occurred, State General Construction Permit coverage is confirmed.
- Review of the Erosion and Sediment Control Plans to ensure that the BMPs implemented on-site are consistent with the appropriate phase of construction (Preliminary Stage, Mass Grading Stage, Streets and Utilities Stage, Vertical Construction Stage, and Post-Construction Stage).
- Visual observations for non-stormwater discharges, potential illegal connections, and potential pollutant sources.
- Determination of compliance with local ordinances, permits, WQMP, and other requirements, including the implementation and maintenance of BMPs required under local requirements.

- Assessment of the effectiveness of BMPs implemented at the site and the need for any additional BMPs (e.g., BMP effectiveness may be evaluated by considering applicable action levels or numeric effluent limits promulgated by the State Board or EPA).

The City/County/District implements its inspection program in the following manner: INSERT text

Example Text: The Position Title in the Agency/Department is responsible for conducting construction inspections in the City/County/District. The process for implementing an inspection includes:

- *The Position Title schedules an inspection by INSERT Process/Method.*
- *When an inspection occurs, the Position Title meets with the on-site construction personnel responsible for permit implementation.*
- *The Position Title verifies that that the project has obtained coverage under the State's General Construction and has a valid WDID number by INSERT Process/Method.*
- *The Position Title completes an inspection checklist in coordination with construction personnel.*
- *If no compliance concerns are noted, the inspection checklist is: INSERT how inspection form is processed internally.*
- *If the inspection identifies an infraction or non-compliance with the State General Construction Permit, the Position Title notifies the RWQCB for follow-up action (notification includes the observed violations, prior history of violations, any enforcement actions taken or planned by the City/County/District, and any other relevant information).*
- *If the inspection identifies non-compliance with provisions of the approved WQMP, the inspector: INSERT follow-up process.*

4.4.3 Risk-Based Inspection Program

Experience gained under previous MS Permits has demonstrated the need to develop a new approach for prioritizing inspections so that resources are directed to the most important facilities/sites first. This shift in emphasis is particularly important considering the need to become TMDL-focused. The current inspection prioritization system treats all facilities within certain categories as equal (even though their potential to contribute pollutants to the MS4 may vary substantially) and assigns levels of priority that may be inappropriate given the experience learned over time regarding the risk of stormwater pollutant discharge from a particular facility.

By July 29, 2011 the area-wide MS4 program will revise how inspections are prioritized for industrial and commercial facilities and construction sites by developing a risk-based scoring system (*X.A.4*). This effort will be coordinated with development of a risk-based inspection program for public agency facilities (*XIII.B*) (see LIP Section 6.3). Any facility subject to section 313 of Title III of SARA or any site found in significant non-compliance with the State General Industrial Permit(s) or the MS4 Permit will automatically be considered a high risk and therefore a high priority site for inspection. The risk-based scoring system for ranking other facilities will consider factors including, but not limited to (*X.A.4*):

- Hazardous nature of materials used on site
- Potential for erosion and pollutant discharges, particularly such materials as pre-production plastic (nurdles) or pollutants for which the receiving water is impaired
- Site size
- Location including proximity to receiving water
- History of spills and leaks
- Use of pollution control and prevention measures
- Compliance history

Creation of the risk-based scoring system will include development of criteria to identify the facilities as high, medium or low risk (*X.A.4*). Sites that are found to be in significant non-compliance with Statewide General Permits or MS4 Permit will be inspected at least once per month until full compliance is restored; for all other facilities ranked as high, medium or low based on the risk-based scoring system, the frequency of inspection will not change from what is described above.

Once developed, the risk-based scoring system will be subject to RWQCB approval (*X.A.4*). After approval and implementation, the facility database submitted with the Annual Report will include the risk-based scores for each facility (*X.A.4*). The Position Title in the Agency/Department of the City/County/District will review the facility scores on a regular basis and update them as needed.

4.4.4 Inspection Program Database

The Position Title of the Agency/Department in the City/County/District is responsible for ensuring that industrial and commercial program activities are properly documented in the MS4 Solution Database system (also see LIP Section 2.10). Information maintained in the database includes:

- Facility ownership;

- SIC codes;
- State General Industrial Permit WDID number (if any);
- Facility size;
- GIS data in appropriate format;
- Description of the nature of activities at the site; and
- Inspection information, including date, inspectors and facility personnel present, site conditions, any observed non-compliance, enforcement actions and/or corrective actions required (including schedule), and date of full compliance.

Annually, the Position Title provides inspection information to the Principal Permittee for reporting to the RWQCB in the Annual Report (see LIP Section 9.3).

4.5 Training

The City/County/District staff receives training to implement the Municipal Inspections Program throughout the area-wide MS4 Permit training program (*XVI*) (see LIP Section 2.11).

Section 5
New Development and Redevelopment

5.1 Program Description

New development and redevelopment activities often offer opportunities to design and implement modern, permanent site and building features that may reduce or eliminate stormwater pollution throughout the lifetime of a facility or development. On the other hand, construction activities associated with development can contribute significant amounts of pollutants if BMPs are not properly deployed or "housekeeping" practices are not implemented. This section describes the process by which the area-wide MS4 program and City/County/District manage development activities in the permitted area to reduce or eliminate pollutant discharges to the MEP.

5.2 Development Projects

The MS4 Permit requires post-construction BMPs to be implemented for both private and public new development and significant redevelopment projects. To implement this permit requirement, the area-wide MS4 program requires the completion of a WQMP to minimize the potential adverse effects that development projects can have on receiving waters (*XI.A.8*). These effects may be minimized through the implementation of site designs that reduce runoff and pollutant transport by minimizing impervious surfaces and maximizing onsite infiltration, source-control BMPs, and/or either on-site structural treatment control BMPs, or participation in regional or watershed-based structural treatment control BMPs.

To support preparation of WQMPs, the area-wide MS4 program established an RWQCB-approved Model WQMP Guidance and Template document in 2005 during the third-term MS4 Permit. By July 29, 2011 revised WQMP Guidance and Template documents will be developed by area-wide MS4 program, to include new elements required under the fourth term permit (*XI.D.2*) (see LIP Section 5.2.4). Until the revised WQMP Guidance and Template are developed and adopted, use of the existing WQMP Guidance and Template accomplishes the following goals:

- Development and implementation of programs and policies to minimize the effects of urbanization on site hydrology, urban runoff flow rates or velocities, and pollutant loads. This goal may be achieved through watershed-based structural treatment controls in combination with site-specific BMPs.

- Reduction of pollutants in post-development runoff to MEP.

- Reduction or elimination of the discharge of any listed pollutant to an impaired waterbody on the 303(d) list (see LIP Section 11.3) that causes or contributes to an exceedance of a receiving water quality objective.

The Model WQMP Guidance and Template provides the framework to be followed by development project proponents. The Project WQMP is required to meet minimum standards of compliance as specified by the MS4 Permit. Project WQMPs undergo an extensive review process in the City/County/District. The following sections provide a general overview of WQMP requirements and describe the review and approval process in the City/County/District. Additional information is contained in the area-wide MS4 program's 2005 Model WQMP Guidance.

5.2.1 Projects Requiring a WQMP

Project proponents for the following types of new development and redevelopment projects must develop, submit, and implement a WQMP (based on the third-term MS4 Permit):

- Project falls into at least one of the categories listed in Table 5-1 (Category Projects). In general, Category Projects are required to include the following elements:
  - Incorporate and implement site design BMPs as specified in the WQMP;
  - Incorporate and implement all source control BMPs as specified in the WQMP, unless not applicable to the project due to project characteristics;
  - Either incorporate and implement treatment control BMPs as specified in the WQMP, by including a selection of such BMPs in the project design; or participate in or contribute to an approved regional-based treatment program. Site design and source control BMPs are required for projects participating in regional-based treatment programs; and
  - The combination of site design, source control and/or treatment control BMPs or regional-based treatment program must address all identified pollutants and hydrologic conditions of concern (HCOC).
- Project does not fall into one of the listed categories in Table 5-1, but the project has a precise plan of development (e.g. all commercial or industrial projects, residential projects < 10 dwelling units, and all other land development projects with potential for significant adverse water quality impacts) or subdivision of land (Non-Category Projects). The WQMP for a Non-Category Project requires the following elements:
  - Incorporate and implement site design BMPs, as determined to be appropriate during the site planning and approval process; and
  - Incorporate and implement all applicable source control BMPs as listed in the WQMP.

Table 5-1. Category Projects in Existing WQMP

Category No.	Project Type[1]
1	All significant redevelopment projects - defined as the addition or creation of 5,000 or more square feet (sq. ft.) of impervious surface on an already developed site. This includes, but is not limited to, additional buildings and/or structures, extension of existing footprint of a building, construction of parking lots, etc. Where redevelopment results in an increase of less than 50% of the impervious surfaces of a previously existing development, and the existing development was not subject to a WQMP, the design standards apply only to the addition, and not the entire development. When the redevelopment results in an increase of more than 50% of the impervious surfaces, then a WQMP is required for the entire development (new and existing).
2	Home subdivisions of 10 units or more. This includes single family residences, multi-family residences, condominiums, apartments, etc.
3	Industrial/commercial developments of 100,000 sq. ft. or more. Commercial developments include non-residential developments such as hospitals, educational institutions, recreational facilities, mini-malls, hotels, office buildings, warehouses, and light industrial facilities.
4	Automotive repair shops (with SIC[2] codes 5013, 5014, 5541, 7532- 7534, 7536-7539).
5	Restaurants where the land area of development is 5,000 sq. ft. or more.
6	Hillside developments of 10,000 sq. ft. or more which are located on areas with known erosive soil conditions or where the natural slope is 25% or more.
7	Developments of 2,500 sq. ft. of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters[3].
8	Parking lots of 5,000 square feet or more exposed to stormwater. A parking lot is defined as land area or facility for the temporary storage of motor vehicles.

[1] – A subdivision of land may require a WQMP
[2] - For SIC codes, see: www.osha.gov/oshstats/sicser.html
[3] – See LIP Section 11.3, Table 11-1 for list of impaired waters

If the project is not classified as a Category or Non-Category Project, the City/County/District may still require that the project proponent prepare a WQMP for the development project. Emergency public safety projects are excluded if the delay that would be caused by the requirement for a WQMP will compromise public safety, public health and/or environmental protection.

The Position Title in the Agency/Department is responsible for evaluating project descriptions and making a determination regarding whether or not a proposed project requires preparation of a WQMP. The Position Title is also responsible for making a determination that an emergency public safety project is exempt from WQMP requirements.

Table 5-2. General Steps for Completing a Project WQMP (NOTE: this will be updated with new WQMP)

STEP	APPROACH
1	Determine if WQMP is required
2	Determine Pollutants of Concern (see Model WQMP Table 2-1 and WQMP Template)
3	Determine HCOC
4	Incorporate site design BMPs (see Model WQMP Section 2.5.1.1)
5	Incorporate source control BMPs (see Model WQMP Table 2-2)
6*	Incorporate treatment control BMPs (see Model WQMP Table 2-3)
7*	Determine operation and maintenance requirements and responsible party
8*	Determine funding source for operations and maintenance and responsible party
9	Complete WQMP Template with information from Steps 1 through 8
10	Submit WQMP for City/County/District review and approval

* If the individual project is part of an approved regional-based water quality control program, Steps 6 through 8 will require identification of the regional-based program, and compliance with all requirements specified in the WQMP Guidance document.

5.2.2 WQMP Development Approach

The area-wide MS4 program has developed a Model WQMP Guidance to support preparation of a Project WQMP. Attachment A of this guidance is a template that is recommended for use by project proponents to ensure the preparation of a complete WQMP. Table 5-2 summarizes the key steps incorporated into the WQMP Template.

To assist in determining if a WQMP is required for a project, the project proponent is required to complete pages A-2, A-3 and A-4 of Attachment A of the WQMP Template and submit them to the City/County/District for review and approval. If the City/County/District determines that a WQMP is required, then a WQMP must be developed, submitted, and approved prior to the City/County/District issuing grading, building, or occupancy permits.

A WQMP is required to be developed and implemented for City/County/District projects that qualify as Category Projects or Non-Category Projects, regardless of whether City/County/District permits are required. WQMP requirements must be incorporated into the project design and shown on project plans prior to bidding for construction contracts or similar contracts, and before allowing the project to commence.

Failure to develop or submit a WQMP for Category or Non-Category projects will result in denial of grading, building, and occupancy permits. Failure to implement a WQMP in conjunction with the project will result in denial of occupancy permits or

approvals. Failure to implement a WQMP after construction of the project may result in enforcement actions by the City/County/District and referral to the RWQCB for additional enforcement actions.

When a development project includes a proposed building for which no anticipated use is designated (e.g., as may occur through speculative development activities), or when an unanticipated element of land use or occupancy is proposed after the basic building has already been completed, the City/County/District includes language in the permit conditions to require the applicant to submit chemical management plans, if applicable. The submitted chemical management plans are distributed by the Position Title to the Agency/Department for review and approval. Certificates and building permits may be withheld if required BMPs are not or cannot be incorporated. Certificates and permits may also be withheld if, because of the proposed use of the building, the presence of on-site structural infiltration treatment BMPs may pose a risk to groundwater.

5.2.3 WQMP Development and Approval Process

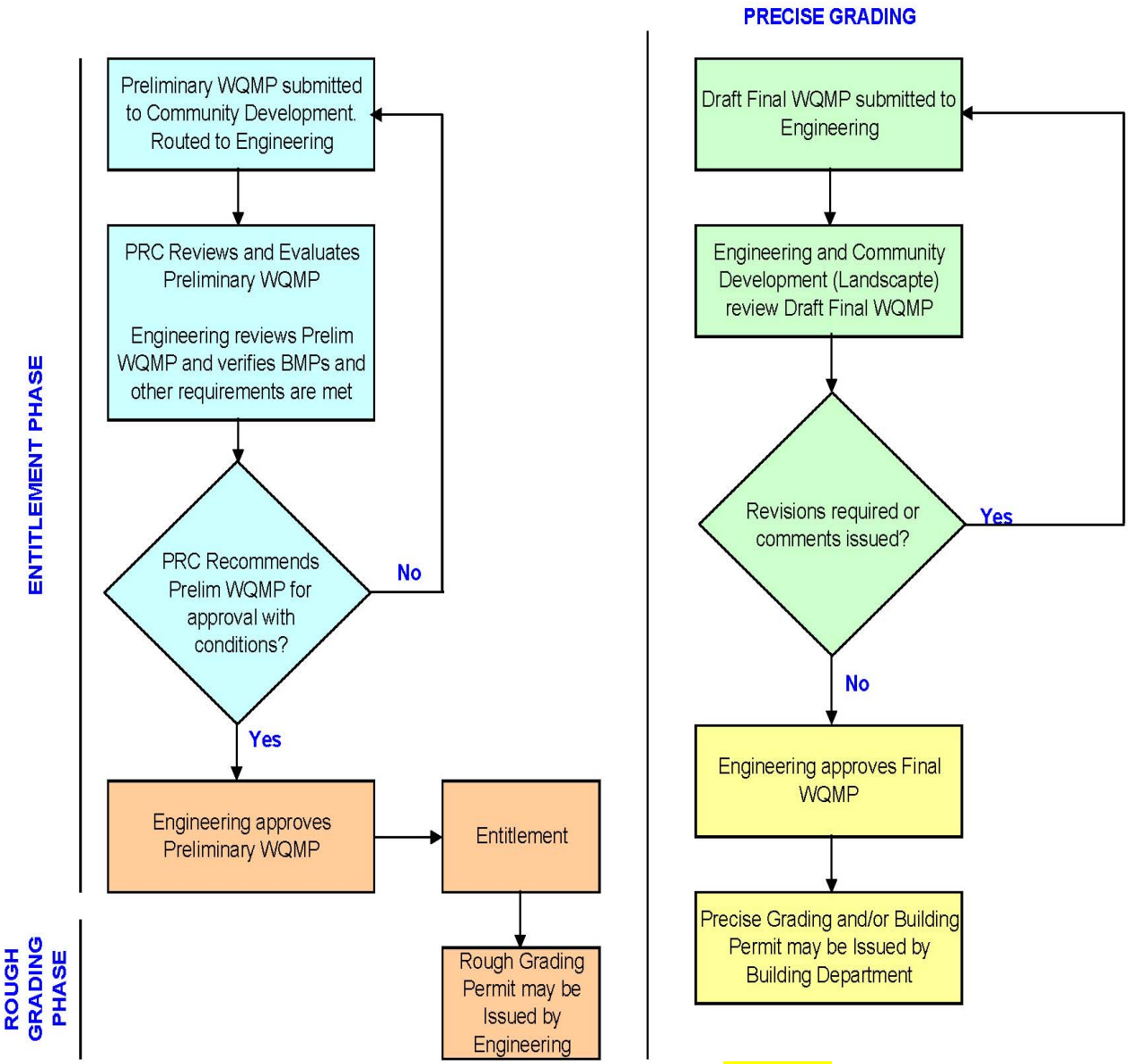
Preparation of a WQMP involves a number of steps to fulfill state (California Environmental Quality Act [CEQA] and 401 Certification) and local requirements applicable to developments (*XI.C*). Both private and public development projects are subject to these requirements. Figure 5-1 provides a flow chart that illustrates the review and approval process for all WQMP submittals in the City/County/District. The following sections describe state and local WQMP development requirements.

INSERT Figure 5-1 – City/ County WQMP Process Flow Chart (Note: Chino Hills WQMP process flow chart provided as an example)

State Requirements - CEQA and 401 Certifications

It is the responsibility of the project proponent to fulfill CEQA and state permit requirements in the development of their project proposal. However, as part of the WQMP approval process the City/County/District staff is required to ensure that:

- Direct, indirect, and cumulative water quality impacts of stormwater and non-stormwater runoff are properly considered and addressed in the land-use planning process. Accordingly, the following potential water quality impacts are to be considered during the preparation and circulation of environmental documents prepared pursuant to CEQA:
  - Potential impact of project construction on stormwater runoff.
  - Potential impact of project's post-construction activity on stormwater runoff.
  - Potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.



Example Figure 5-1
WQMP Process Chart

- Potential for discharge of stormwater to affect the beneficial uses of the receiving waters.
- Potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm.
- Potential for significant increases in erosion of the project site or surrounding areas.

- For any project that may require a 401 Certification from the RWQCB, project review is coordinated with RWQCB staff pursuant to the requirements of CEQA (*XI.C.2*). If requested by RWQCB staff, this coordination will include providing identification and contact information for the project proponent and facilitation of early-consultation meetings.

The City/County/District ensures implementation of the above permit requirements through the following process:

INSERT how CEQA/401 Certification process is implemented within overall WQMP development and approval process. Identify Agency/Department and Position Title responsibilities.

City/County/District Process

The City/County/District implements a comprehensive project review and approval process to ensure that proposed projects comply with MS4 Permit and local ordinance requirements. The following sections describe this process and roles and responsibilities of City/County/District Agencies/Departments:

INSERT: Detailed explanation regarding how WQMP submittals are reviewed and approved in the City/County/District. There are a number of specific items that need to be included in this description in the July 29, 2011 LIP submittal. These are listed below (see Permit Section XI.H):

- *WQMP review checklist that incorporates the required elements of the WQMP (NOTE: this will become LIP Appendix H).*
- *Clear process for consultation early in the planning process with the City/County/District's appropriate departments and sections. This review process shall involve the City/County/District's Planning and Engineering Departments during the preliminary and final WQMP review to adequately incorporate project-specific water quality measures and watershed protection principles in their CEQA analysis.*
- *Tools or procedures to incorporate project conditions of approval, including proper funding and maintenance and operation of all structural BMPs.*
- *Prior to approval of the WQMP, identification of the parties responsible and the funding mechanism for the long-term maintenance and operation of the*

BMPs upon project close-out and a funding mechanism for operation and maintenance.

- *Procedure to track changes in ownership and responsibility for the operation and maintenance of post-construction BMPs to ensure that they are properly recorded in public records at the City/County/District and the information is conveyed to all appropriate parties when there is a change in project or site ownership.*
- *Final project close-out procedure and checklist(this will become Appendix I) to ensure that post-construction BMPs (site design, structural source control and treatment control BMPs) have been built as per the approved WQMPs or other conditions of approval and are fully functional prior to issuance of certificates of occupancy.*
- *Procedure to work cooperatively with the local vector control district to address any potential vector problems associated with BMP design, installation, and operation and maintenance to prevent or minimize vector issues.*

5.2.4 WQMP Revisions

The 2010 MS4 Permit requires significant revision to the Model WQMP Guidance and Template to incorporate a number of new requirements for development projects, including revisions to what are defined as Category or Priority Projects (Table 5-3) and incorporation of LID principles (*see Permit Section XI, in its entirety*).

By July 29, 2011, the area-wide MS4 program will submit a revised Model WQMP to the RWQCB for approval. The primary purpose for the revised Model WQMP is to incorporate LID principles (where feasible) and to address the impact of urbanization on downstream hydrology. Other elements to be revised include updating source and treatment control BMP information. The City/County/District will implement the new WQMP requirements within 90 days of RWQCB approval of the revised Model WQMP.

During the period between July 29, 2011 and implementation of the RWQCB-approved WQMP, the City/County/District will require either the implementation of LID BMPs in development projects or the completion of a project-specific feasibility analysis that demonstrates the infeasibility of LID BMPs for each project (*XI.E.9*). For the latter, each analysis will be submitted to the RWQCB at least 30 days prior to City/County/District approval of the project. Feasibility determinations must be certified by a California-registered Professional Civil Engineer, documented in the Project WQMP, approved by City/County/District staff prior to submittal to the RWQCB (*XI.E.9*). Within 30 days of submittal to the RWQCB, the City/County/District will be notified whether the RWQCB intends to take any action.

Table 5-3. Priority Projects (Per 2010 MS4 Permit)

Category No.	Project Type[1]
1	All significant redevelopment projects - defined as the addition or replacement of 5,000 or more square feet (sq. ft) of impervious surface on an already developed site subject to discretionary approval of the City/County/District. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in an increase of less than 50% of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site. Where redevelopment results in an increase of 50% or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development.
2	New development projects that create 10,000 sq. ft. or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions or townhomes, condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public and private land, which fall under the planning and building authority of the City/County/District.
3	Automotive repair shops (with SIC[1] codes 5013, 5014, 5541, 7532-7534, 75367539).
4	Restaurants (with SIC[1] code 5812) where the land area of development is 5,000 sq. ft. or more.
5	All hillside developments of 5,000 sq. ft. or more which are located on areas with known erosive soil conditions or where the natural slope is 25% or more.
6	Developments of 2,500 sq. ft. of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters[2].
7	Parking lots of 5,000 sq. ft. or more exposed to stormwater. A parking lot is defined as land area or facility for the temporary parking or storage of motor vehicles.
8	Retail Gasoline Outlets that are either 5,000 sq. ft. or more, or have a projected average daily traffic of 100 or more vehicles per day.

[1] - For SIC codes, see: www.osha.gov/oshstats/sicser.html
[2] – See LIP Section 11.3, Table 11-1 for list of impaired waters

Once the revised Model WQMP Guidance has been approved by the RWQCB, the submittal of feasibility determinations to the RWQCB will no longer be required (*XI.E.9*).

The LIP will be revised as needed to incorporate WQMP revisions (*XI.H*). In addition as required by the MS4 Permit, by January 29, 2012 the LIP will be revised to incorporate the following information into the WQMP review and approval process (*XI.C.4*):

- GIS-based mapping that shows the natural channels, wetlands, riparian corridors and buffer zones and identifies conservation and maintenance measures for these

features. This information is being developed as part of the area-wide MS4 program WAP (see LIP Section 11.4.2).

- Applicable tools (such as ordinances, design standards, and procedures) used to implement green infrastructure/LID principles for public and private development projects.

5.3 Road Projects

By January 29, 2012, the area-wide MS4 program will develop and submit to the RWQCB for approval a Road Projects Guidance (*XI.F*). This document will provide standard design and post-development BMP guidance for incorporation into public street, road, highway, and freeway improvement projects to reduce the discharge of pollutants from the projects to the MEP. The guidance will address any paved surface used for transportation of automobiles, trucks, motorcycles, and other vehicles, but will exclude routine road maintenance activities where the surface footprint is not increased. The MS4 Permit requires that the guidance address performance standards for site design/LID BMPs, source control and treatment control BMPs as well as the HCOC criteria. At a minimum, the guidance will include the following:

- Guidance specific to new road projects;
- Guidance specific to projects for existing roads;
- Size or impervious area criteria that trigger project coverage;
- Preference for green infrastructure approaches wherever feasible; and
- Criteria for design and BMP feasibility analyses on a project-specific basis.

Within six months of RWQCB approval, the City/County/District will implement the Road Projects Guidance. This LIP will be revised, as needed, to incorporate any changes in the approved process for the review and approval of proposed road projects. Until the new guidance is approved, the City/County/District continues to require site-specific WQMPs for streets, roads and highway projects consistent with the process described above for Category Projects (see LIP Section 5.2.1). In addition, the City/County/District has implemented the streets and roads practices described in LIP Section 6.3.2.

5.4 Project Construction

All approved development projects are subject to a number of MS4 Permit requirements to control the runoff of pollutants from the construction site. These requirements are discussed in LIP Section 4.3.

5.5 Post-Construction Requirements

The MS4 Permit includes a number of requirements that address post-construction BMP monitoring and management. Required activities are described in the following sections.

5.5.1 Field Verification of BMP Functionality

The MS4 Permit requires the City/County/District to verify the functionality of post-construction structural BMPs prior to issuance of a certificate of occupancy and to track and ensure long term operation and maintenance of post-construction BMPs in approved WQMPs (*XI.I*). The verification of functionality includes ensuring that to the MEP all post-construction BMPs continue to operate as designed and implemented with control measures necessary to effectively minimize the creation of nuisance or pollution associated with vectors, e.g., mosquitoes, rodents, and flies (*XI.K.1*). To facilitate this requirement the following City/County/District implements the following activities:

- The Position Title in the Agency/Department implements project close-out procedures that include a field verification inspection that site design, source control and treatment control BMPs are designed, constructed and functional in accordance with the approved WQMP (*XI.I.1*). The Position Title completes a project close-out checklist (Appendix I: To be developed), which includes the WDlD number, if applicable, and information on the type, location and maintenance responsibility of the BMPs. The copy of the completed checklist is provided to the RWQCB.

- Within three years after project completion and every three years thereafter, the Position Title conducts an inspection of the post-construction BMPs prior to the rainy season to verify through visual observation that the BMPs are properly maintained, operating, and functional (*XI.I.2*). The Position Title records the results of these periodic inspections in the post-construction BMP database (see below) and summarized in the Annual Report.

5.5.2 Post-Construction BMP Database

By January 29, 2011, the area-wide MS4 program will establish a database to track structural BMPs identified in the WQMP and implemented as part of construction projects (*XI.K.2*). The database will include information such as the type of BMP design, location of BMPs (latitude and longitude), date of construction, party responsible for maintenance, maintenance frequency, source of funding for operation and maintenance, maintenance verification, and any problems identified during inspection including any vector or nuisance problems.

Structural BMP information from all construction projects (public and private) will be included in this database. The process by which the City/County/District incorporates such information into the database will be incorporated into this LIP after the database is developed.

5.6 Performance Bond Program

Performance bonds are commonly used for reclamation permits associated with mining activities. These bonds are required to ensure that funds are available to address environmental clean-ups, especially if the mining company fails. The concept of a performance bond may also be applied to new development activities to ensure structural BMPs are properly installed and maintained. During the 2010 MS4 Permit term the area-wide MS4 program will consider developing a performance bond program that can serve as a model for the region. If this model program is developed, the City/County/District will evaluate implementation of such a program within its jurisdiction. The LIP will be revised, as needed, to incorporate performance bond program information.

5.7 Training

The City/County/District staff involved in the review and approval of WQMPs and inspection of construction sites, as described in this section of the LIP, receives training through the area-wide MS4 Permit training program (*XVI*) (See LIP Section 2.11). In addition, developers and construction contractors are provided opportunities to participate in training activities either through the MS4 Permit program or State and RWQCB training activities (*XVI*).

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Section 6
Public Agency Activities

6.1 Program Description

Public agency activities may have potential impacts, both positive and negative on stormwater quality. The Public Agency Activities program is directed at reducing the potential for negative stormwater quality impacts from activities such as municipal landscape maintenance, and implementing other municipal activities that may have a beneficial impact, such as street sweeping and storm drain cleaning. The Public Agency Activities program specifically excludes municipal activities and discharges that are covered under a separate NPDES permit, such as publicly owned treatment works.

The MS4 Program's MSWMP (Section 6) describes program elements designed to manage pollutants entering the MS4 from sources associated with municipal activities. Key elements addressed include sewage systems (Section 6.2.1), maintenance areas and materials storage areas (Section 6.2.2), landscape maintenance (6.2.3), storm drain systems (6.2.4), and streets and roads (6.2.5). The public agencies also establish appropriate training programs to ensure municipal staff are equipped to implement MS4 Permit requirements.

6.2 Facility Inventory

The City/County/District maintains an inventory of its municipal facilities and activities including fixed facilities, field operations, and drainage facilities (*XIII.A*). The City/County/District will maintain this facility database by INSERT process.

> *Example Text: The Position Title in Agency/Department of City/County/District annually reviews the inventory to determine (1) if any new facilities have been added or deleted during the past year; (2) if any new field operation activities have been added to or removed from City/County/District responsibilities; and (3) if there have been any significant modifications to drainage facilities.*

6.3 Fixed Facilities and Field Operations

The MS4 Permit has different requirements for fixed facilities and field operations as compared to drainage facilities. This section describes how the MS4 Permit is implemented to address potential pollutant discharges from fixed facilities and field operations. Section 6.4 describes requirements and implementation activities for drainage facilities.

6.3.1 Inspection Program

The City/County/District currently conducts regular inspections of public agency facilities and activities. This inspection program may be revised according to

provisions in the MS4 Permit. The following sections describe the existing inspection program and options for revising the program.

Existing Facility Inspection Program

The City/County/District conducts inspections of all of its municipal facilities on an annual basis to ensure that facilities and activities do not contribute pollutants to receiving waters (consistent with the MEP standard) (*XIII.A*). At a minimum, the City/County/District carries out inspections of the following types of facilities that it owns or operates, including:

- Public streets, roads (including rural roads) and highways within its jurisdiction;
- Parking facilities;
- Fire fighting training facilities;
- Flood management projects and flood control structures;
- Areas or facilities and activities discharging directly to environmentally sensitive areas such as 303(d) listed waterbodies or those with a RARE beneficial use designation;
- Publicly owned treatment works (including water and wastewater treatment plants);
- Sanitary sewage collection systems;
- Solid waste transfer facilities;
- Land application (e.g., compost application, animal/dairy manure application, and biosolids application sites);
- Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles;
- Household hazardous waste collection facilities;
- Municipal airfields;
- Parks and recreation facilities;
- Special event venues (festivals, sporting events);
- Power washing; and
- Other municipal areas and activities that the City/County/District determines to be a potential source of pollutants.

When conducting inspections, the Position Title in the Agency/Department of the City/County/District uses an Inspection Checklist (Appendix J), based on the checklist developed for the MAPPS training program (see LIP Section 2.11), and inspects each facility at least once each year. Following the inspection, the Position Title implements the following procedures:

> *Example Text: The inspection results are reviewed and signed by the Position Title. The signed inspection form is kept on file by the Agency/Department and the information is incorporated in the inspection database (see LIP Section 6.8) by the Position Title. If an inspection identifies non-compliance with an MS Permit requirement, the inspector notifies the Position Title who works with the facility or program to bring it into compliance. Additional inspections are conducted as needed to verify compliance. If necessary, facility staff is required to receive appropriate training.*

Future Risk-based Inspection Program

During the term of the 2010 MS4 Permit, the area-wide MS4 program may revise how inspections are prioritized for public agency facilities by developing a risk-based scoring system (*XIII.B*). If implemented, this effort may be coordinated with development of risk-based scoring system for industrial and commercial facilities and construction sites (see LIP Section 4.4.3). Creation of a risk-based scoring system would include development of criteria to identify the facilities as high, medium or low risk.

If developed, the risk-based scoring system is subject to RWQCB approval. After approval and implementation, the facility database submitted with the Annual Report will include the risk-based scores for each facility. The Position Title in the Agency/Department of the City/County/District will review the facility scores on a regular basis and update them as needed.

6.3.2 Targeted Facility or Program Requirements

The area-wide MS4 program has developed specific stormwater management programs for selected public agency facilities or field operation activities. These are described in the following sections.

6.3.2.1 Maintenance Areas and Materials Storage Areas

The goal of this program is to eliminate non-stormwater discharges from maintenance and material storage areas exposed to rainfall or subject to stormwater run-on. Targeted municipal facilities and activities include:

- Facilities used for servicing, fueling, or washing vehicles or equipment. Most often, these facilities are found at corporate yards, however they may also be found at local or regional parks, golf courses, fire stations, police stations, and other areas.
- Outdoor storage areas for chemicals, materials, and wastes associated with municipal activities, e.g., at corporate yards, parks, golf courses, and fire stations.

Chemicals, materials, and wastes of concern include, but are not limited to vehicle fuels; fluids and wash waters; paving and base materials; pesticides, herbicides, and fertilizers; pool chemicals; algaecides; and materials recovered through household hazardous waste collection programs or spill response (HazMat).

The MAPPS training program focuses on reducing or eliminating pollution from corporate yards (see LIP Section 2.11). In addition, these facilities are required to develop site-specific stormwater management plans for maintenance and material storage areas. At a minimum, these plans include:

- Site map showing pertinent site features and storage areas, runoff patterns, and drainage facilities;
- Discussion of potential sources of pollution;
- List of applicable BMPs;
- Contact information for the person or position responsible for the site; and
- The name and function of additional staff responsible for implementing BMPs (that will be targeted for training).

Generic BMPs and plan elements can be used for activities that are performed at more than one site, but each site is evaluated separately. These facilities are required annually to review, and if necessary, update the site-specific plans to reflect current site conditions. The Position Title in the Agency/Department of the City/County/District verifies that this review is regularly conducted.

6.3.2.2 Landscape Maintenance

The goal of this program element is compliance with good housekeeping practices and pollution prevention BMPs for landscape and waterbody maintenance activities. This element specifically addresses the following outdoor landscape maintenance activities:

- Landscape irrigation;
- Storage and disposal of landscape materials and wastes;
- Use of pesticides, herbicides, and fertilizers;
- Maintenance of public waterbodies, including swimming pools, lakes, ponds, and fountains; and
- Pavement and walkway cleaning (pressure washing) and related discharges.

All of these maintenance activities have a potential for contributing pollutants to stormwater. However, pollutant discharges can be reduced or eliminated to the MEP by developing and implementing good housekeeping practices and other pollution prevention BMPs. The Position Title of the Agency/Department in the City/County/District ensures that landscape maintenance activities comply with MS4 Permit requirements by:

Example Text: (1) periodically reviewing, and if necessary, modifying BMP fact sheets that address maintenance practices used at parks and recreation facilities and public waterbodies to ensure appropriate stormwater pollution prevention methods are implemented; (2) verifying that facility employees and contractors comply with state regulations for pesticide use and applicator licensing and certification; and (3) maintenance staff receives appropriate MS4 Permit training.

6.3.2.3 Streets and Roads

Road Maintenance Practices - The area-wide stormwater program has established road maintenance BMPs required for incorporation into the construction specifications included in the contract documents for each applicable project. As contractors review the contract documents and prepare bid packages, these specifications provide a reminder of specific BMPs and practices that must be implemented and provide a separate enforcement mechanism for the City/County/District to implement, if necessary.

To ensure implementation, the area-wide stormwater program developed a road maintenance BMP Fact Sheet that is reviewed during "tailgate" safety meetings conducted during construction. The fact sheet addresses typical road maintenance activities such as saw cutting, paving, slurry/fog sealing, painting and striping, and pavement grinding. Road maintenance staff also receives appropriate training (see LIP Section 2.11).

The Position Title in Agency/Department of the City/County/District ensures that the road maintenance practices described above are implemented on municipal projects. The Position Title also ensures that road maintenance staff are properly trained.

Street Sweeping - The City/County conducts regular sweeping of public streets with curb and gutter to reduce the potential for pollutants on City/County roadways from reaching storm drains during storms. Street sweeping does not occur in areas that do not have significant continuous curbs and gutters. This program is implemented as follows:

Example Text: The Position Title of the Agency/Department is responsible for the implementation of this program in the City/County. Currently, at least 75% of streets with curb and gutter are swept at least once each year. However, the City/County conducts more frequent sweeping in areas where debris build-up occurs with higher frequency. Periodically, the City/County analyzes debris collections to estimate the tonnage of debris collected in different areas. This information is used to target areas where increased frequency of street sweeping is warranted.

6.4 Drainage Facilities

The following sections describe the existing drainage facility inspection program and process for evaluating and, if necessary, revising the inspection program.

Existing Facility Inspection Program

The Agency/Department in the City/County/District is responsible for inspecting the drainage facilities owned and operated by the City/County/District. Currently, as required by the MS4 Permit, at least 80% of the inlets, open channels, and basins are inspected at least once each year, with 100% of the facilities inspected in a two-year period (*XIII.C, D*). If the inspection identifies one or more of the following conditions, then the facility is cleaned:

- Sediment/debris storage volume is 25 percent or more full;
- Evidence exists of an illicit discharge; or
- Accumulated sediment or debris impairs the hydraulic function of the facility.

The City/County/District implements its drainage facility inspection program in the following manner:

> *Example Text: The Position Title in the Agency/Department is responsible for implementation of this inspection program. The area-wide program's drainage facility inspection BMP Fact Sheet provides the basis for the inspection and making a determination regarding whether the facility requires cleaning. The Agency/Department has established a drainage facility inspection schedule that guides the inspection program. The City/County/District prioritizes inspections using the following criteria:*
>
> - *Proximity of drainage facility to a receiving water;*
> - *Receiving water beneficial uses;*
> - *Impairments of beneficial uses in receiving waters;*
> - *Historical pollutant types and loads noted from past inspections/cleanings; and*
> - *Presence of downstream regional facilities that would remove the types of pollutants found in the drainage facility.*
>
> *The Position Title documents the results of each inspection. If it is determined that the inspected facility requires cleaning, then the Position Title notifies the Position Title in the Agency/Department and within X weeks the facility is cleaned. The Position Title re-inspects the facility within X weeks of cleaning to verify that the facility meets the MS4 Permit criteria for a "clean" facility. The Position Title records inspection results and facility cleaning summaries in the Inspection Program Database (see LIP Section 6.8) and provides the information to the Principal Permittee for inclusion in the Annual Report.*

Facility Inspection Program Evaluation

The MS4 Permit includes a provision that allows the City/County/District to annually evaluate, and, if appropriate, revise the priority and frequency of drainage

facility inspections and clean-outs (*XIII.E*). The City/County/District implements this provision as follows:

> *Example Text: Annually, the Position Title in the Agency/Department evaluates the inspection and cleanout frequency of its drainage facilities. Using data generated by City/County/District's drainage facility and IC/ID inspection programs the Position Title of the Agency/Department evaluates the priority and schedule for implementing drainage facility inspections (as determined by the criteria described above). If the Position Title determines from the data that a facility can be inspected/cleaned out less frequently than once each year, than a justification is prepared and included in the Annual Report.*

6.5 Sewage Management

INSERT: Ownership/responsibility information for the City/County sanitary sewer system:

> *Example Text: The XXXX Sanitary District currently has jurisdiction within the City/County's service area and is responsible for preventive and corrective sewer maintenance programs. This program consists of procedures and methodologies provided for the operation, maintenance, repair and replacement of sewer mains, manholes, and pump stations. The program provides for routine monitoring, inspection, cleaning, and related maintenance of all components of the municipal sanitary sewer system in order to reduce the potential of SSOs and structural failures. Although the XXXX Sanitary District has primary jurisdiction of the sanitary sewer system in this area, responding to overflows that reach the municipal storm drain system is a joint or shared responsibility of both the XXXX Sanitary District and Agency/Department of the City/County.*

Sewage spills can be a major source of pollution, especially if the discharge reaches the storm drain system or receiving water. Accordingly, the goal for the City/County District is to prevent sewage spills from entering the storm drain system to the MEP. The City/County/District implements several programs to ensure that sewage does not enter the City/County/District's storm drain system. Illegal connections to the storm drain system are discussed in LIP Section 3. This section addresses other elements of sewage management.

6.5.1 Sewer Management

The City/County/District provides the XXX Sanitary District 24-hour access to the City/County/District's MS4 system to address sewer management issues including sewage spills and infiltration from leaking sanitary sewer systems (*IX.A*). The Position Title of the Agency Department is responsible for coordination with the XXX Sanitary District, and implementing procedures to minimize infiltration of seepage from sanitary sewers to the storm drain system (*IX.A, XIII.F*). These procedures include:

Example Text:

- *During routine maintenance and inspection, the Position Title notes the condition of sanitary sewer structures and identifies areas that are in need of repair or maintenance to prevent seepage from the sewer system to the storm drain system.*
- *The Position Title educates field staff to recognize suspected seepage from the municipal sewer to the storm drain system.*
- *The Position Title of the Agency/Department televises sewer mains to determine the structural integrity and condition of pipes.*
- *The Position Title of the Agency/Department ensures compliance with the Agency/Department's minimum requirement for the acceptable separation between the newly installed sewer pipelines and the storm drain system.*
- *The Position Title ensures the elimination of any known illegal connections between the sewer system and the storm drain system (see also Section 3)*

OPTIONAL: INSERT routine maintenance and inspection schedule.

NOTE: If the City/County/District has established a Sanitary Sewer Management Plan for the area, that information should be summarized here.

6.5.2 Sewage Spills

The following sections describe how the City/County/District addresses sewage spills that have the potential to impact the storm drain system (*IX.E*).

Sewer Overflow Response Plan

The area-wide MS4 program coordinated preparation of a *Sanitary Sewer Overflow Unified Sewage Response Plan* on July 1, 2003. This plan was developed specifically for sewering agencies and their contractors operating in the Permit area. It established a common approach to sewer overflow response procedures in case of a spill. On May 2, 2006, the State Board adopted statewide general waste discharge requirements for sanitary sewer systems (Water Quality Order No. 2006-0003-DWQ) to provide a consistent statewide approach for reducing SSOs. Key requirements contained in the permit include:

- In the event of an SSO, all feasible steps should be taken to control the overflow and prevent untreated wastewater from entering storm drains and receiving waters;
- If an SSO occurs, it must be reported to the state using an online reporting system developed by the State Board; however, if the spill is greater than 1000 gallons it must also be reported to the California Emergency Management Agency (1-800-852-7550); and
- All publicly owned collection system agencies with more than one mile of sewer pipe in the state must develop a Sewer System Management Plan according to the requirements specified in the permit.

By DATE, the area-wide MS4 program will review, and, if necessary, revise its *Sanitary Sewer Overflow Unified Sewage Response Plan* to ensure consistency with the 2006 State General Permit (*IX.C*) (Appendix K). This review will be coordinated with local sewering agencies, including: INSERT local responsible agency for sanitary sewer (*IX.C*). This LIP will be revised, if needed, after that review is complete.

Sewage Spill Response Procedures

The City/County/District has implemented the following sewage response procedures to reduce impacts from a sewage spill to the storm drain system:

Example Text: The Position Title of the Agency/Department is responsible for directing the City/County/District's response to a sewage spill in to a local storm drain or drainage facility. In general, the Position Title implements the following procedures when a spill occurs:

Response: If not already completed upon arriving on scene, the Position Title ensures that (1) the discharge or release of sewage has been discontinued and is being contained as close to the originating site as possible; and (2) secures the site to prevent contact by the public. The order of preference for spill containment is:

- *On-site at the point of origination*
- *In the curb/gutter or street*
- *In the catch basin*
- *In the storm drain system*
- *In the channels/streams*

Clean-Up: The main objective in the clean-up operation is to restore the impacted area back to its original state (to the extent practicable) and prevent further environmental degradation in the surrounding area of the incident. During this phase of the response, the Position Title of the Agency/Department oversees and directs the cleanup ensuring appropriate resources are available. General responsibilities include:

- *Coordination with appropriate agencies and responsible parties for clean-up actions;*
- *Oversight of clean-up and verification of pollutant removal;*
- *Proper disposal of any debris*
- *Disinfection of site, where appropriate.*
- *Documenting clean-up activities.*

Reporting: The Position Title reports the sewage spill to the appropriate agencies including: INSERT list

6.5.3 On-Site Wastewater Treatment (Septic Systems)

The City/County/District implements management/preventative activities to reduce the risk of on-site wastewater treatment systems (including portable toilets and failing septic systems) from causing or contributing to pollutants in the MS4. Specifically,

> *Example Text:*
> *Portable Toilets – The Position Title of the Agency/Department is responsible for ensuring that the following BMPs are implemented to minimize potential storm drain impacts from portable toilets.*
>
> - *All temporary portable restrooms will be placed at least 50 feet away from all storm drain inlets, drainage swales and gutters, waterbodies, and any other locations that have the potential to impact the storm drain system.*
> - *All temporary portable restrooms are required to have a secondary containment pan or additional BMPs in place around the stations for possible overflows.*
> - *The contact information for the company responsible for the restrooms will be clearly marked on or around the restrooms.*
>
> *Failing Septic Systems – The Position Title of the Agency/Department is responsible addressing a failing septic system when one is identified. Failed systems are addressed by: INSERT process.*

By January 2012, the City/County/District will develop an inventory of septic systems within its jurisdiction and establish a program to ensure that failure rates are minimized (pending adoption of regulations as per Assembly Bill 885 regarding onsite waste water treatment systems) (*IX.F*).

6.6 Municipal Construction Projects

The City/County/District complies with State and MS4 Permit requirements for public agency construction projects (*XIV.A, B*). These requirements include:

- Authorization for the City/County/District to discharge stormwater runoff from construction projects that (1) are under ownership or direct responsibility of the City/County/District; (2) may result in land disturbance of one acre or more (or less than one acre, if it is part of a larger common plan of development or sale which is one acre or more); and (3) are implemented in accordance with the MSWMP.

- Compliance with the latest version of the State's General Permit for Stormwater Discharges Associated with Construction Activities (including all terms and conditions) (State Board Order No. 2009-0009-DWQ) for municipal construction projects, except that a NOI does not need to be filed with the State Board. Instead, prior to commencement of construction activities, the City/County/District notifies the RWQCB Executive Officer of the proposed construction project by electronically submitting an NOI and SWPPP, or Permit Registration Documents (PRDs), and a location map depicting the project location. Per the MS4 Permit, annual fees for NOI/PRD filings are waived (*XIV.C*).

- Notification upon completion of the construction project, by the City/County/District to the RWQCB by submitting: (1) a Notice of Termination (NOT) (2) photographs of the completed project; (3) a site map depicting the project location and the locations of structural post-construction BMPs (with latitude and longitude, if appropriate); and (4) copies of the final field verification report (*XIV.D*).

- Development and implementation by the City/County/District of a WQMP (if applicable), a SWPPP, a monitoring program that is specific for the construction project prior to the commencement of any of the construction activities, and any other reports or plans required under the State General Construction Activity Storm Water Permit (*XIV.E*).

- Keeping the SWPPP and the WQMP at the construction site making them available to the public or RWQCB staff upon request (*XIV.E*).

- Advance notice by the City/County/District to the RWQCB of any planned changes in the construction activity, which may result in non-compliance with the latest version of the State's General Construction Activity Storm Water Permit (*XIV.F*).

The above requirements do not apply when emergency City/County/District public works projects are required to protect public health and safety (*XIV.G*). When the emergency ends, the City/County/District complies with the above requirements.

The City/County/District implements the municipal construction requirements described above as follows:

> *Example Text: The Position Title of the Agency/Department is responsible for ensuring compliance with MS4 Permit requirements for public agency construction activities and filing the appropriate notifications to the RWQCB (NOI, NOT, PRD). The Position Title of the Agency/Department prepares the WQMP and SWPPP, ensuring that each are fully approved prior to commencement of construction. The internal approval process consists of the following steps: INSERT Steps. The Position Title in the Agency/Department is responsible for conducting inspections of municipal construction activities to verify compliance with permit requirements. If the inspection identifies areas of non-compliance, the Position Title implements the following steps to bring the construction site into compliance INSERT Steps.*

6.7 De Minimus Discharges

For de minimus discharges the City/County/District complies with the requirements of the RWQCB's General De Minimus Discharge Permit (Order No. R8-2009-0003) (*XV*). Authorized discharges may include:

- Construction dewatering wastes;

- Wastes associated with well installation, development, test pumping and purging;

- Aquifer testing wastes;
- Dewatering wastes from subterranean seepage, except for discharges from utility vaults;
- Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.;
- Discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.;
- Discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.;
- Discharges from potable water supply systems resulting from initial system startup, routine startup, sampling of influent flow, system failures, pressure releases, etc.;
- Discharges from fire hydrant testing or flushing;
- Air conditioning condensate;
- Swimming pool discharge;
- Discharges resulting from diverted stream flows;
- Decanted filter backwash wastewater and/or sludge dewatering filtrate water from water treatment facilities; and
- Other similar types of wastes as determined by the RWQCB Executive Officer, which pose a de minimus threat to water quality yet must be regulated under waste discharge requirements.

The Position Title of the Agency/Department notifies the RWQCB Executive Officer of the proposed de minimus types of discharge at least 15 days prior to start of the discharge, by submitting an NOI and appropriate supporting documents.

The MS4 Permit requires that discharges from lawn, greenbelt, and median watering and other irrigation from the City/County/District's facilities be minimized through water conservation efforts (*V.B.2*). The Position Title in the Agency/Department minimizes discharges of this type from City/County/District-owned facilities by INSERT procedure.

6.8 Municipal Facility Inspection Program Database

The Position Title in the Agency/Department of the City/County/District documents municipal facility inspections in the MS4 Solution Database system (*XIII.A*). Information for each facility is maintained in the database including:

- Facility type/type of activity;
- Facility size;
- GIS data in appropriate format;
- Description of the nature of activities at the site; and
- Inspection information, including date, inspectors and facility personnel present, site conditions, any observed non-compliance, enforcement actions and/or corrective actions required (including schedule), and date of full compliance.

Annually, the Position Title provides summarized inspection information to the Principal Permittee for reporting to the RWQCB in the Annual Report.

6.9 Training

The City/County/District staff involved in Public Agency Activities, as described in this section of the LIP, receives training through the area-wide MS4 Permit training program (*XVI*) (see LIP Section 2.11).

Section 7
Residential Program

7.1 Program Description

The purpose of the residential component is to implement BMPs that may improve the quality of stormwater runoff from residential areas. The MS4 Program's MSWMP (Section 7) describes program elements designed to manage pollutants typically entering the MS4 from residential sources. Currently, the residential program focuses on pollution prevention for the following residential activities:

- Private vehicle washing and maintenance;
- Use of chemicals such as pesticides, herbicides and paints;
- Private swimming pool maintenance;
- Other types of household and landscape maintenance; and
- Use of safe substitutes for materials presently used.

This section of the LIP describes how these programs are implemented in the City/County/District and identifies areas where the existing stormwater management program for residential areas may be modified in the future (*X.E.3*).

7.2 Residential Source Reduction Programs

The City/County/District currently implements a number of pollutant source reduction programs targeted at residential areas (*X.E.2*). Many of these programs are coordinated with PEO programs described in LIP Section 8.

7.2.1 Vehicle Washing and Maintenance

The City/County/District implements BMPs to address activities conducted by individuals that involve discharge of pollutants associated with vehicle washing and maintenance, e.g., disposal of vehicle fluids such as motor oil, soaps, and other auto-related pollutants. These BMPs include:

- Implementing household hazardous waste round-ups with drop-off center;
- Providing used motor oil collection centers for recycling used oil; and
- Conducting PEO activities (see LIP Section 8).

The Position Title in the Agency/Department is responsible for the implementation of vehicle washing and maintenance BMPs in the City /County/District. This Position Title implements these BMPs by INSERT procedure.

7.2.2 Landscaping

This source reduction program focuses on proper use of herbicides, pesticides, and fertilizers, proper disposal of leftover toxic materials, minimizing landscape waste, and reducing excess irrigation. Source control BMPs for this program element include the public education program (see LIP Section 8), which targets all such activities on an area-wide basis. These BMPs encourage residents to use alternative (non-polluting) products, implement proper disposal of landscape wastes, and avoid excessive irrigation.

> *INSERT if applicable: In addition, the City/County/District also implements local BMPs, including: INSERT list/description.*

The Position Title in the Agency/Department is responsible for the implementation of landscaping BMPs in the City /County/District. This Position Title implements these BMPs by INSERT procedure.

7.2.3 Home Maintenance

This program element targets improper homeowner disposal (or use) of toxic materials such as paints, thinners, strippers, varnishes, and insecticides. The two primary area-wide BMPs that address these activities are (1) public education, which encourages alternative (non-polluting) products and/or proper disposal; and (2) household hazardous waste round-ups and use of drop-off centers.

The public education effort (see also LIP Section 8) is a partnership with home improvement stores, garden centers, nurseries, paint stores, and hardware stores. To the extent possible, the effort includes point-of-purchase displays at major retail outlets, to inform residents of non-toxic alternative products and proper disposal methods for leftover toxic materials, and the training of retail store employees on proper disposal of paint, pesticides and fertilizers. Direct training of store employees expands the public outreach effort by providing pollution prevention information that the employees can pass on to customers.

San Bernardino County has implemented an area-wide household hazardous waste collection program with several permanent collection points throughout the permit area and temporary "mobile" collection facilities that are used for local household hazardous waste "round-ups." INSERT one of the follows:

> *The City/County/Department participates in this County program by INSERT implementation procedures and Agency/Department and Position Responsible.*
>
> *or*
>
> *The City/County/District has established a local household hazardous waste collection program. INSERT program description, implementation procedures, Agency/Department and Position Responsible.*

7.2.4 Illegal Dumping

This source reduction program encompasses the full array of activities by residents that involve discharge of objects or materials into storm drains, gutters, catch basins, or anywhere rainfall or runoff could carry the materials into the storm drain system. The related pollutants include objects that are part of general littering, as well as large household items and toxic materials. Area-wide MS4 programs have been established to address illegal dumping (*X.E.4*). These programs include (see also LIP Sections 6 and 8):

- Public education;
- Storm drain inlet and storm drain stenciling program;
- 24-hour hotline number for reporting illegal dumping activities; and
- Catch basin cleaning; and street sweeping.

The Position Title in the Agency/Department is responsible for the implementation of BMPs that target illegal dumping in the City /County/District. This Position Title implements these BMPs by INSERT procedure.

7.2.5 Pet Waste Management

This program element addresses improper disposal of fecal matter from pets, primarily in public areas (streets, parks). The area-wide public education program continues to be the primary method for addressing this pollutant source (see LIP Section 8). In addition, the County has established an ordinance (San Bernardino County Code 32.0108f) which prohibits owners from allowing their dogs to defecate in many public areas (Appendix L).

> *NOTE: above text taken from MSWMP; INSERT additional information if any City has adopted pet waste management ordinances.*

The MS4 Permit contains requirements for the development of additional controls to manage the potential for pollutants from animal waste to impact water quality (*VII.D*). Any new requirements will be implemented by January 29, 2013 (see also LIP Section 7.3.1) to satisfy both MS4 Permit and potentially TMDL requirements. This LIP will be revised, as needed, to incorporate additional information.

7.2.6 Swimming Pool/Spa Maintenance

Swimming pool and spa maintenance activities can result in discharges of chlorine, algaecides, chemicals, filter backwash solids and biosolids. The City/County/District implements public education programs to inform swimming pool/spa owners of requirements for managing discharges from pools and spas which are subject to the terms and conditions of the RWQCB's General De Minimus Discharge Permit (Order No. R8-2009-0003).

INSERT if applicable: In addition to the RWQCB Order, the City/County/District has promulgated an ordinance that includes the following requirements for managing discharges from pools and spas: INSERT Requirements and include ordinance if different from already referenced stormwater ordinance (currently shown as Appendix D).

7.3 Residential Program Development

The MS4 Permit requires the development of new requirements to reduce the potential for the contribution of pollutants from residential areas to the MS4. The following sections describe these requirements

7.3.1 Pathogen Source Ordinance

By January 29, 2013, the MS4 Permit requires that the City/County/District promulgate ordinances that specify control measures for known pathogen or bacterial sources such as animal wastes if these types of sources are present within its jurisdiction (*VII.D*). Efforts to develop such ordinances will be coordinated with the area-wide MS4 program and implementation of the Middle Santa Ana River (MSAR) Bacteria TMDL (see LIP Section 11.3.1). This LIP will be revised as appropriate to document the requirements and procedures associated with any such ordinances, if adopted.

7.3.2 Homeowner Association/Management Company Practices

The MS4 Permit requires permittees to develop and implement control measures for common interest areas and areas managed by Homeowner Associations (HOA) or management companies (*X.E.5*). This may include development and promotion of public education materials identifying BMPs for these common interest or HOA areas.

The City/County/District will work with the area-wide MS4 program to develop these materials, which will consider the applicability of programs such as the Landscape Performance Certification Program (Metropolitan Water District of Orange County's Evaluation of the Landscape, January 2004) to encourage efficient water use and to minimize runoff. This LIP will be revised as appropriate to document the requirements and procedures applicable to HOAs or management companies.

7.3.3 Residential Program Updates

By January 29, 2013, the MS4 Permit requires that the City/County/District develop and implement a residential program designed to reduce the discharge of pollutants from residential facilities to the MS4 and to prevent discharges from the MS4 from causing or contributing to exceedances of water quality standards in receiving waters (*X.E.1*). The City/County/District already targets specific residential activities that have the potential to impact water quality (see LIP Section 7.2).

The City/County/District will work with the area-wide MS4 program to determine where program revisions are needed to address this MS4 Permit requirement (*XI.E.2*). To support this effort, the area-wide MS4 program may work with other regional

organizations, e.g., Inland Empire Resource Conservation District, Land Trust Alliance, USDA Natural Resources Conservation Service, or USDA's Backyard Conservation Program. This LIP will be revised as appropriate to document any modifications to the residential program.

Section 8
Public Education and Outreach

8.1 Program Description

The area-wide public education and outreach program (PEO) is targeted at educating the general population about potential sources of stormwater pollution, resulting impacts, and practical methods of reducing or eliminating pollutant discharges from public activities. The PEO engages in a coordinated education and media program, with outreach in each individual permittee jurisdiction. The program has three primary goals:

- Continue to increase awareness of stormwater pollution and its impact on our environment;
- Continue to educate residents and businesses on how to change their behavior to minimize pollution; and
- Maintain compliance with the MS4 Permit requirements.

The strategy of the program focuses on directing San Bernardino County residents and businesses to available resources that yield the highest potential of pollution reduction discharged into the storm drain system (*XII.B*). This education program is particularly important for pollutants for which a TMDL has been established. As funding allows, the strategy includes the following elements:

- *Conduct Pollutant-Specific Outreach*—The program's educational materials each identify a pollutant and the simple pollution prevention behavior(s) associated with it. Whenever possible, messages are delivered in settings tied to these pollutants, such as placing paint tip cards in paint stores and placing posters reminding pet owners to pick up after their dog in pet facilities;
- *Leverage Funds*—To stretch existing program funds, the program has developed partnerships with existing city and county programs and corporate enterprises to distribute educational messages to target audiences;
- *School Education Outreach*—The PEO's presentations educate students on what stormwater pollution is and encourage pollution prevention practices such as not littering;
- *Website and Program Hotline*—The San Bernardino County Stormwater Program's website (http://www.sbcountystormwater.org/) provides residents and businesses news and information on the Program's efforts to reduce stormwater pollution. In addition, a regional stormwater hotline number is operational within

San Bernardino County (1-800-WASTE-18) to report stormwater pollution concerns.

The following sections describe how PEO program elements are prioritized and how the strategy is implemented throughout the County.

8.2 Program Prioritization

Stormwater program emphasis is shifting from characterizing water quality and building a sound general program, toward improving water quality with more targeted implementation efforts. Through June 2010, the implementation of the PEO element was broadly directed – with a goal of sharing information with people in as many different pollutant source categories as possible. In the future, the MS4 program will focus on targeting the most significant water quality problems in the MS4 receiving waters, e.g., in areas where a TMDL is being implemented. This approach allows the PEO program to focus resources on the most important water quality priorities (*XII.A*).

The PEO is directed by the MS4 Program Management Committee with input from a Public Education Subcommittee (see also LIP Section 2.1.3). The subcommittee typically meets monthly to develop and review education materials, coordinate with public education consultants, and recommend program activities to the Management Committee (*XII.A*). INSERT if applicable: the Position Title of the Agency/Department in the City/County/District actively participates on the Public Education Subcommittee.

At least annually, the permittees evaluate and revise the PEO as needed to ensure the long-term effectiveness of the program. Any revisions to the PEO are consistent with the annual reassessment of area-wide program priorities with particular emphasis on addressing the most critical stormwater pollution problems. Any changes in the priorities associated with the PEO program are described in the Annual Report (see LIP Section 9.3).

By January 29, 2011, the area-wide MS4 program will prepare BMP guidance for the control of those potentially polluting activities which are not otherwise regulated by any agency, identified prior to the adoption of the 2010 MS4 Permit. BMP information will include guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals, and guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting (*XII.E*). These guidance documents will be distributed to the public, trade associations, etc., through participation in community events, trade association meetings and/or by mail (see below for how the City/County/District coordinates this effort).

8.3 Regional Outreach

The area-wide MS4 program benefits from developing PEO program elements that can be jointly or cooperatively implemented with other regional stormwater

programs, e.g., Riverside, Orange County, or Caltrans. Cooperative implementation provides cost savings, can improve program efficiency, ensure that a consistent message on stormwater pollution prevention is disseminated to the public, and achieve region-wide improvements in water quality, especially to support TMDL implementation.

The Public Education Subcommittee evaluates opportunities for regional cooperation with other agencies and makes recommendations to the Management Committee for implementation (*XII.C*).

8.4 Pollutant-Specific Outreach

The area-wide PEO regularly develops focused outreach materials targeted at specific pollutants, activities, population groups, and businesses (as determined by the prioritization established for the program). The Management Committee identifies specific outreach efforts for development and implementation (reviewed annually) and works with the Public Education Subcommittee to execute the recommendations as funding allows.

8.4.1 Facility Outreach

Facility/site outreach may include, but is not limited to, brochures, BMP fact sheets, videos, displays, and focused mass media advertising (*XII.F*). Example of facility outreach efforts include:

- Point-of-purchase programs targeting proper use and disposal of common household products and chemicals. Potential target pollutants include herbicides, pesticides, automotive fluids, cleaners, solvents, paint, and pool chemicals. Pet supply retailers may be targeted for outreach on proper clean up and disposal of animal wastes.
- Business/industry outreach targeting specific industries such as restaurants, automotive, service centers, gasoline stations and other similar facilities. The permittees will continue dissemination of outreach materials designed to reach participating target businesses, and to conduct a voluntary "clean business award" program, including advertising awarded businesses to the public.
- Reviewing and revising guidelines for the control of potentially polluting activities not otherwise specifically regulated by any other state or federal agency (vehicle maintenance activities, carpet cleaners, commercial landscape maintenance and pavement cutting).
- Providing appropriate educational materials to all new commercial enterprises in their jurisdiction at the time building and construction permits (or occupancy permits) are issued and/or at the time business licenses are issued.

Outreach is provided to industrial and commercial, construction sites and trade associations through whatever means is deemed most effective (see also LIP Section 4.4.1, education outreach conducted as part of the City/County/District inspection

program). In the City/County/District, outreach to these facilities is implemented in the following manner:

> *Example Text: The Position Title in the Agency/Department is responsible for the implementation of the public education program. The Position Title coordinates with other departments to ensure stormwater information is regularly disseminated. Specific efforts include:*
>
> - *Industrial/Commercial Facilities: INSERT text*
> - *Construction Sites: INSERT text*
> - *Trade Associations: INSERT text*

8.4.2 Public Outreach

The area-wide MS4 PEO directs public outreach efforts to areas targeted as a high priority for information dissemination (*XII.A*). Similar to the expectations for facility/site outreach, the MS4 program regularly develops and disseminates focused outreach materials targeted at specific pollutants, public activities (for example pet management) and population groups (as determined by the prioritization established for the program). Public outreach may include, but not be limited to, brochures, BMP fact sheets, videos, displays, and focused mass media advertising. Outreach to the public will be by whatever means is deemed most effective by the permittees.

In the City/County/District, public outreach is implemented in the following manner:

> *Example Text: The Position Title in the Agency/Department is responsible for the implementation of the stormwater education programs to the public. The Position Title coordinates with other departments to ensure stormwater information is regularly disseminated. Specific efforts include: INSERT specific activities.*

8.5 School Education Outreach

The MS4 Program PEO engages in outreach to elementary school students (*XII.A, B*), through a program run by the Malibu Foundation. Environmental education promotes public awareness and increases knowledge of environmental issues. The earlier that environmental education is provided, the more likely that it will have a strong effect on an individual's values, and in turn, one's lifestyle choices. Program goals include:

- Outreach to elementary schools to educate students about watersheds, storm drains, and sources of stormwater pollution to meet the goals and objectives of the MS4 Permit.

- Encourage teachers and students to organize a school cleanup as part of the students' hands-on environmental education.

School principals in each permittee jurisdiction are contacted annually and offered to have a presentation made at their school. Presentations are made in a classroom setting (where they are tailored to specific grade levels) or in school assemblies which reach the entire school population. Presentations use interactive slideshow techniques to connect students with their surroundings, teach them about the storm drain system, and how litter in San Bernardino County impacts rivers, beaches and oceans. Where appropriate, a call to action is made, e.g., by encouraging students to put in to practice the lessons they've learned by hosting their own cleanup event.

Each year the Management Committee identifies specific school outreach efforts for development and implementation and works with the Public Education Subcommittee to execute the recommendations.

8.6 Website and Program Hotline

The area-wide MS4 program continues to maintain a hotline telephone number and website (1-800-WASTE-18 (800-927-8318); www.sbccounty.gov/stormwater) and encourages the public to report water quality issues, such as illegal dumping and discharges from residential, industrial, construction or commercial sites into public streets, storm drains and other waterbodies. Reports may also include clogged storm drains, missed warning stencils on catch basin drains and other potential hazards to water quality (*XII.G*). The hotline number and website address are promoted in public and business outreach materials and at outreach events, and the phone number is listed in the governmental pages of all regional phone books and on the MS4 program website.

Reports made to the hotline telephone number or website are received by the Principal Permittee, and disseminated to the appropriate agency within the City/County/District. Calls reported or made directly to the City/County/District are handled in the following manner: INSERT procedure

> *Example Text: After receiving a notification of a water pollution problem on the are-wide hotline, Position Title of the Agency/Department notifies the appropriate Position Title of the Agency/Department of the City/County/District about the problem. The Position title of the City/County/District investigates the problem as soon as possible. Investigation steps include:*
>
> *Response – The Position Title conducts an on-scene assessment, containment of the problem, if necessary, and notification to other agencies. Notifications may include: (1) RWQCB as required under Section XVII.A of the MS4 Permit (see LIP Section 2.8); (2) Notification to other agencies—Notifications need to be made to any agencies or entities that may be affected by or have jurisdiction over the pollutant or discharge; (3) Requesting Assistance—If it is determined that the incident requires a multi-agency response, it may be necessary to request additional assistance from the other agencies. Appendix M provides the Agency Notification List.*

Investigation - The Position Title carefully documents the investigation to ensure that accurate information is obtained and all evidentiary requirements are met. The actual investigation may include one or more of the following: (1) Collection of samples and the submittal of a Chain of Custody form to the laboratory conducting the analyses; (2) Photographs, if deemed necessary to record visual observations and document evidence for possible future enforcement action; and (3) Interviews, if deemed necessary.

Clean-up - The Position Title ensures that no further environmental degradation occurs and the impacted area is restored back to its original state to the MEP.

Report – The Position Title prepares reports as required by (INSERT, e.g., local reporting requirements established by ordinance) and reports the incident to the RWQCB, if required.

Section 9
Program Evaluation

9.1 Program Description

The area-wide MS4 program periodically evaluates the implementation of MS4 Permit activities. This evaluation allows the permittees to take stock of their program and to modify it, as needed, as part of their ongoing effort to reduce pollutants in stormwater to the MEP and meet regional TMDL implementation requirements.

Program evaluation elements consist of data collection and reporting using both direct and indirect monitoring methods. Direct monitoring of water quality is important because it provides data that demonstrate whether receiving waters are meeting water quality objectives. This is particularly important for waters identified as impaired or waters for which a TMDL has been established. Indirect monitoring provides a means to evaluate the status or level of effort achieved with implementation of specific program elements, for example, BMPs, training or public education. This LIP section describes the indirect program evaluation activities implemented as part of the MS4 Permit. LIP Section 10 describes the direct monitoring activities.

9.2 Program Effectiveness Measures

Measuring program effectiveness using indirect measures continues to be a challenge for any stormwater program. Often many of the indirect measures (for example, numbers of inspections; number of Notices of Corrections) provide little to no information as to whether or not water quality has been improved or at least not degraded. These indirect measures of success typically fall into one of the following four areas:

- *Permit Requirements* – Measure of the degree of success in implementing specific time-sensitive permit elements, for example the completion of studies, and preparation of workplans.
- *Management Milestones* - Quantitative measures of implemented stormwater management activities, for example, the number of inspections, number of spills responded to, or the number of brochures mailed out.
- *Pollutant Loads Avoided* – Quantitative measures of pollutants removed and thus eliminated from having the potential to be flushed into receiving waters, for example the number of pounds of sediment removed from catch basins or the number of pounds of debris removed from streets.
- *Public Behavior* – Use of public surveys to measure changing public sentiments.

Currently, the mechanisms are in place to measure program effectiveness in all of these areas. The primary mechanism to regularly report the outcome of this evaluation is the Annual Report, which is submitted to the RWQCB by November 15th

of each year. Additional mechanisms exist through the preparation of MS4 program-specific reports required by the MS4 Permit. The following sections describe the various program evaluation mechanisms implemented as part of the MS4 Permit.

9.3 Annual Report

The area-wide MS4 program submits an Annual Report to the RWQCB and EPA Region 9 by November 15th each year (*Permit Attachment 5, VII.E*). The report documents permit implementation activities for the previous fiscal year (July 1 – June 30). The report is available at www.sbcountystormwater.org/gov_per.html. The MS4 Permit requires the Annual Report to include the following elements:

- Review of the status of program implementation and compliance (or noncompliance) with the schedules contained in the MS4 Permit;
- An assessment of the effectiveness of control measures established under the illicit discharge elimination program and the MSWMP;
- An assessment of control measures and their effectiveness in addressing pollutants causing or contributing to an exceedance of water quality objectives in waterbodies listed as impaired. This evaluation considers (1) changes in land use and population on receiving water quality; (2) impact of development on sediment loading within receiving waters; and (3) need for changes to program implementation and monitoring;
- Preparation of an overall program assessment that (1) identifies, to the extent practicable, water quality improvements and pollutant load reductions resulting from implementation of various program elements; and (2) provides an assessment of each program element required under the MS4 Permit, including the expected outcome and the measures used to assess the outcome;
- Status report on the development and implementation of the Hydromodification Monitoring Program developed as part of the WAP (program currently under development – see LIP Section 11.4.2);
- Summary and analysis of monitoring results from the previous year and any changes to the monitoring program for the following year;
- Financial summary report including: (1) each permittee's expenditures for the previous fiscal year; (2) each permittee's budget for the current fiscal year; and (3) a description of the source of funds;
- Draft workplan which describes the proposed implementation of the LIPs and MSWMPs for next fiscal year. The workplan includes clearly defined tasks, responsibilities, and schedules for implementation of the stormwater program and each permittee's action plans for the next fiscal year;

- Major changes to any previously submitted plans/policies; and
- An assessment of the permittee's compliance status with the Receiving Water Limitations (Section VI of the MS4 Permit) and any proposed modifications to the MSWMP and WQMP if the Receiving Water Limitations are not fully achieved.

The District, as the Principal Permittee, leads the preparation of the Annual Report for submittal to the RWQCB and EPA Region 9. However, the compilation of information for the report is a collaborative effort among all permittees. The MS4 Solution Database provides a standardized format for entering data to be used in the annual report. Data required for reporting from each permittee is stored in the Database. Entries are the responsibility of each permittee jurisdiction, and are individually certified. The MS4 Database provides the bulk of data used by the District to prepare the annual report.

The process for development of the report is as follows:

> *Example Text: Following completion of a fiscal year (i.e., after June 30th), the Principal Permittee requests input from the permittees by DATE. This submittal includes the following: INSERT. The Position Title in the Agency/Department is responsible for compiling the required information for the City/County/District. The Position Title requests information from the following Agencies/Departments in the City/County/District by DATE: INSERT request. The Position Title reviews the data received prior to submitting it to the Principal Permittee.*

The Principal Permittee assembles a draft report that is reviewed by the permittees prior to submittal. Typically, the report is structured as follows:

- *Introduction* – Provides an overview of the MS4 Permit program.
- *Program Administration* - Provides background information on how the area-wide MS4 program is organized and administered. It includes summaries of permittee participation, the program budget, and program expenditures.
- *Program Status* – This section is the heart of the report, providing summaries of outcomes from each program area, e.g., inspections, control of illicit discharges and PEO activities.
- *Stormwater Monitoring Program* – Summarizes the results and analysis of water quality monitoring activities.
- *Overall Program Effectiveness* – Evaluates progress with BMP implementation, water quality protection, and meeting program goals.
- *Program Activities for Next Reporting Year* – Identifies proposed goals and activities for the next permit year and outlines any proposed changes to the program.

Following review by the permittees, a final Annual Report is prepared and submitted by the November 15 annual deadline. Accompanying the report submittal, are

detailed facility, inspection and MS4 Permit data files, downloaded from the MS4 Solution Database. The Database is maintained as an integral element of the area-wide MS4 program.

9.4 MSWMP Evaluation

By October 1 of each year, the area-wide MS4 program evaluates the MSWMP to determine the need for revisions to reduce pollutants in MS4 discharges to the MEP (*XVIII.B*). Any revisions to the MSWMP are reported in the Annual Report submitted by November 15 each year (*XVIII.C*). The Position Title in the Agency/Department is responsible for providing input to this process and communicating potential program changes that may impact budgets or personnel to senior officials in the City/County/District.

9.5 Local Implementation Plan Updates

The LIP will be revised, as needed, to comply with permit requirements. Revisions may occur for the following reasons:

- Annually, the City/County/District reviews the LIP to determine the need for revisions to reflect changes either to the area-wide MS4 program or to the MS4 program (e.g., MSWMP) as implemented within the City/County/District.

- Following RWQCB approval of revisions made to the MSWMP or WQMP to support implementation of TMDLs, the LIP will be revised, as needed, to ensure the LIP is consistent with revisions to these program documents (*V.D*). See LIP Section 11.3 for LIP revision requirements related to TMDL implementation.

The Position Title in the Agency/Department is responsible for reviewing and revising the LIP, as needed. Any modifications to the LIP are reported in the information provided to the District as part of the development of the Annual Report.

9.6 Report of Waste Discharge

The MS4 Permit adopted by the RWQCB on January 29, 2010 expires on January 29, 2015. Prior to this expiration date, the area-wide MS4 program will submit a permit renewal application (or Report of Waste Discharge [ROWD]) to the RWQCB. The ROWD will be submitted no later than 180 days prior to the permit expiration date (i.e., by July 29, 2014), and at a minimum will include (*XXII.A*):

- A program effectiveness analysis, including the effectiveness of the overall urban and stormwater runoff management program in achieving water quality standards in receiving waters;

- Proposed revisions to the urban and stormwater runoff management program based on the findings of the program effectiveness analysis and consistent with the risk-based approach proposed in the 2006 ROWD;

- Changes in land use and/or population including map updates;
- Significant changes to the storm drain systems, outfalls, detention or retention basins or dams, and other controls including map updates of the storm drain systems; and
- New or revised program elements and compliance schedule(s) necessary to comply with the Receiving Water Limitations in the current MS4 Permit.

The area-wide MS4 program through the efforts of the Management Committee works collaboratively to develop the ROWD. It is expected that the process for developing this document will begin by late 2013. The Position Title of the Agency/Department is responsible for participating in this process and communicating potential program changes that may impact budgets or personnel to senior officials in the City/County/District.

9.7 Other Program Evaluation Activities

The MS4 Permit includes a number of other program evaluation requirements associated with the implementation of TMDLs. These requirements and the process for implementation are reported in LIP Section 11.

The RWQCB or EPA Region 9 may periodically conduct stormwater program audits. While these audits may identify program deficiencies, they also may highlight commendable program practices. When such practices are highlighted, they will be recognized as "Best Program Practices," and the information is shared with the City/County/District so that the Position Title in the Agency/Department may consider whether the Best Program Practice may be incorporated into the City/County/District's MS4 program.

Section 10
Monitoring

10.1 Program Description

An area-wide monitoring program is administrated by the Principal Permittee on behalf of the Permittees. This program is designed to be representative of the watershed, and includes local and regional monitoring elements per MS4 Permit requirements. The program is administrated under a separate receiving waters and urban monitoring reporting program for the MS4 Permit (*XX.E*).

The overall goal of the monitoring program is to provide information regarding compliance with water quality objectives applicable to waterbodies receiving discharges from the MS4 system. Key objectives to support this goal include (*Permit Attachment 5, II.A*):

- Provide data to support the development of an effective municipal urban runoff pollutant source control program.
- Determine water quality status, trends, and pollutants of concern associated with urban runoff and their impact on the beneficial uses of the receiving waters.
- Assist with identifying the sources of the priority list of pollutants of concern in urban runoff to the MEP (e.g., including, but not limited to atmospheric deposition, contaminated sediments, other non-point sources, etc.).
- Characterize pollutants associated with urban runoff and assess the influence of urban land uses on receiving water quality.
- Evaluate the effectiveness of existing urban runoff water quality management programs, including an estimate of pollutant reductions achieved by the treatment and source control BMPs implemented by the permittees.
- Detect illicit discharges and illegal connections to the MS4s so they can be responded to or eliminated.
- Identify those waters, which without additional action to control pollution from urban stormwater discharges, cannot reasonably be expected to attain or maintain applicable water quality objectives in the Basin Plan.
- Identify and prioritize the most significant water quality problems resulting from urban runoff.

- Evaluate costs and benefits of proposed municipal stormwater quality control programs to the stakeholders, including the public.

10.2 Program Development and Implementation

The area-wide MS4 program implements monitoring activities to fulfill routine monitoring requirements for the permitted area and implement monitoring requirements associated with the implementation of TMDLs. These programs are periodically evaluated and, if needed, modified to ensure that the monitoring collected by the program is consistent with MS4 Permit requirements.

To support the MS4 monitoring program, the area-wide MS4 program participates in the SMC (www.socalsmc.org). SMC's goal is to develop the technical information necessary to better understand stormwater mechanisms and impacts, and then develop the tools that will effectively and efficiently improve stormwater decision-making. The SMC develops and funds cooperative projects to improve regional knowledge of stormwater quality management. The coalition was established in 2000 through a formal letter of agreement signed by all of the Phase I municipal stormwater NPDES lead permittees and the NPDES regulatory agencies in southern California. In fiscal year 2007-2008, SMC member agencies renewed the agreement for another five years and added three additional members. The District as the Principal Permittee represents the area-wide MS4 program at SMC meetings.

10.3 Existing Monitoring Program

The area-wide MS4 program implements a variety of monitoring activities to support the goals and objectives of the MS4 monitoring program. Described in the sections below, the program supports three general types of monitoring: routine, TMDL-based, and regional monitoring.

10.3.1 Routine Monitoring Program

The MS4 Permit requires that regular stormwater monitoring occur at selected sites in receiving waters and the MS4 system. Five sites have been routinely sampled for more than ten years (Table 10-1). Samples are analyzed for key chemical and physical constituents. The data from these sites provides the primary data used to evaluate water quality trends and identify pollutants of concern. The District conducts the routine monitoring program on behalf of all permittees under the M4 Permit.

10.3.2 TMDL-based Monitoring

The area-wide MS4 program provides support to monitoring efforts carried out as part of TMDL implementation activities. Currently, the following TMDL monitoring activities are being supported (LIP Section 11.3 provides additional information regarding these TMDL implementation activities) (*V.D.1*, *4, Permit Attachment 5, V.B.1*):

Table 10-1. Routine Water Quality Monitoring Sites

Site No.	Location	Primary Land Use	Nearest District Rain Gauge	Station Number
2	Cucamonga Creek above crosswalls	Open/forest	Cucamonga Canyon at mouth	1309
3	Cucamonga Creek @ Hwy 60	Commercial and Industrial	Ontario Fire Department	1335
5	Stormwater pipe @ Hunts Lane north of Hospitality Lane	Commercial and Light Industrial	District Office	2001B3
8	Santa Ana River @ Hamner Ave.	Urbanized, Mixed Use	Chino Airport	1360
10	Santa Ana River – 6 miles upstream of Seven Oaks Dam	Open/forest	Santa Ana - Manzanita Flat	3002

- *Middle Santa Ana River Bacterial Indicator TMDL Watershed-wide Compliance Site Monitoring* – Five sites are regularly sampled for bacterial indicators, total suspended solids and selected field parameters: Santa Ana River at MWD Crossing, Santa Ana River at Pedley Avenue, Prado Park Lake Outlet, Mill-Cucamonga Creek at Chino-Corona Road, and Chino Creek at Central Avenue. Samples are collected during dry conditions in the dry and wet seasons and during and after one storm event. The District is responsible for collecting these samples.

- *Big Bear Lake Nutrient TMDL Compliance Program Watershed-wide Compliance Plan* – Six sites at the mouths of tributaries to Big Bear Lake are sampled at different intervals to assess baseline conditions and conditions during snowmelt and storm events. The District is responsible for collecting these samples.

10.3.3 Regional Monitoring Activities

The area-wide MS4 program participates in regional monitoring activities that support the purposes and requirements of the MS4 Permit. The following sections describe these activities.

Stormwater Monitoring Coalition

The area-wide MS4 program is an active participant in monitoring activities sponsored by the SMC. These activities vary from year to year based on the approved SMC Research Agenda. Examples of monitoring studies being implemented by SMC include the Bioassessment Monitoring Program and a Stormwater Data Compilation Study to facilitate data sharing among SMC member agencies. The Annual Report summarizes monitoring activities that the area-wide MS4 program participates in with SMC. Additional information is available directly from the SMC (www.socalsmc.org).

10.4 Monitoring Program Support

The previous sections described the types of monitoring programs implemented as a part of the area-wide MS4 program. Development and maintenance of supporting procedures, databases and reporting activities are also carried out collectively by the area-wide MS4 program. The following sections describe these activities.

10.4.1 Quality Assurance Project Plans

The MS4 Permit requires that monitoring programs be implemented under an approved Quality Assurance Project Plan (QAPP) to ensure compliance with the State's Surface Water Ambient Monitoring Plan (SWAMP) procedures (*Permit Attachment 5, III*). The agency responsible for preparation of the QAPP varies by monitoring program. The routine monitoring conducted by the MS4 program will be developing a QAPP during the 2010 MS4 Permit term (see also LIP Section 10.3). The QAPP will incorporate the monitoring recordkeeping requirements established by the MS4 Permit. TMDL and regional monitoring efforts operate under QAPPs developed specifically for those monitoring activities (*Permit Attachment 5, III*).

10.4.2 Geodatabase Development

Monitoring programs will be supported by a Geodatabase under development by the area-wide MS4 program. Using the San Bernardino County GIS as the foundation, this database characterizes land use, MS4 drainage and adjacent natural channels. A key objective of this effort is to identify drainage channels that are vulnerable to hydrologic impacts, which will provide critical support data for WAP development (see LIP Section 11.4.2). The Geodatabase will also provide a complete, accessible map of the MS4 drainage system.

10.4.3 Reporting

Routine monitoring results are summarized in the Annual Report (see LIP Section 9.3) (*Permit Attachment 5, VII*). All monitoring data are analyzed using appropriate techniques to assess trends, evaluate compliance with water quality objectives and evaluate the long-term effectiveness of the area-wide MS4 program.

TMDL monitoring results are reported as required by the specific TMDL implementation program (see LIP Section 11.3). Regional monitoring results are reported by the appropriate responsible jurisdiction. For example, the results of SMC-sponsored activities may be found at www.socalsmc.org.

10.4.4 Sample Collection Training

QAPPs developed for various monitoring programs establish the sample collection requirements specific to each monitoring program. District staff that collect samples for any monitoring program receive sample collection training through:

INSERT training program elements.

10.5 Monitoring Program Revisions

The MS4 monitoring program is being revised to fulfill a 2010 MS4 Permit requirement to reorganize the program into two primary areas: Integrated Watershed Monitoring and Regional Monitoring (*Permit Attachment 5, IV*). Existing monitoring program elements will be updated as needed and new program elements will be added as required by the MS4 Permit. The following sections describe elements to be incorporated into these two monitoring program areas.

10.5.1 Integrated Watershed Monitoring Program

The area-wide MS4 program submitted an Integrated Watershed Monitoring Plan (IWMP) to the RWQCB for review and approval on DATE. The approved IWMP will be implemented within six months of RWQCB approval or INSERT DATE if known. After its approval this LIP will be updated to incorporate the approved plan. The IWMP submittal includes the following monitoring program components:

Existing Core Monitoring Program (*Permit Attachment 5, IV.B.1*)

The core monitoring program includes both receiving water monitoring and monitoring of the MS4 (*Permit Attachment 5, IV.B.1*). The existing program was reviewed and revised as needed to address the following IWMP requirements:

- *Receiving Water Monitoring* – Objective is to determine if urban runoff is causing or contributing to violations of water quality standards in the receiving waters. Representative sites close to MS4 discharge points and where chronic and/or persistent water quality problems were identified.

- *MS4 Facility Monitoring* - Objective is to determine the pollutant loads from the MS4 and determine if there is a trend. Sites representative of flow, duration and pollutants were selected. This monitoring requirement may be combined with the mass emissions monitoring (revise last sentence as needed based on IWMP).

Urban Discharge Mass Emissions Monitoring (*Permit Attachment 5, IV.B.2*)

The MS4 program selected representative outfall locations to achieve the following objectives for this monitoring program element:

- Estimate the total mass emissions of pollutants of concern from the MS4 to receiving waters;

- Assess trends in mass emissions associated with urban stormwater runoff from the MS4s over time and evaluate potential correlations between any trends in mass emission and land use and population changes; and

- Determine if the MS4 is contributing to exceedances of water quality standards, by comparing outfall and receiving water results to: (1) Basin Plan water quality objectives; (2) EPA stormwater benchmarks contained in the EPA Multi-Sector

Industrial Storm Water Permit; (3) California Toxic Rule; and (4) other MS4 discharge monitoring data.

Illegal Connection/Illicit Discharge Monitoring (*Permit Attachment 5, IV.B.3*)

Development of the IWMP IC/ID monitoring program component included a review and update (where needed) of dry and wet weather reconnaissance strategies designed to identify and eliminate illicit discharges and illegal connections, particularly in areas with a high density of industries associated with gross pollution.

By July 29, 2011, the IWMP will also include a dry weather monitoring program for nitrogen and total dissolved solids (TDS). The purpose of this program is to support the recently adopted nitrogen-TDS water quality objectives and determine baseline concentrations of these constituents in dry weather runoff, if any, from significant outfall locations (36 inches or larger in diameter).

Hydromodification Monitoring Plan (HMP) (*Permit Attachment 5, IV.B.4*)

This IWMP will include an HMP to evaluate hydromodification impacts for the drainage channels deemed most susceptible to degradation and the effectiveness of BMPs in preventing or reducing impacts from hydromodification within the permitted area. The HMP is being developed in conjunction with Phase 2 of the development of the WAP (see LIP Section 11.4.2) and will include:

- Protocols for ongoing monitoring to assess drainage channels deemed most susceptible to degradation, and to assess the effectiveness in preventing or reducing impacts from hydromodification within the permitted area; and

- Models to predict the effects of urbanization on stream stability within the permitted area.

Source Identification and Special Studies (*Permit Attachment 5, IV.B.5*)

Pollutants of Concern - The area-wide MS4 program previously established a priority list of pollutants of concern in the watershed based on the findings of water quality monitoring efforts. These pollutants and their order of priority from high to low were: (1) high - bacteria, (2) medium metals (zinc, copper, lead), (3) low - nutrients (nitrate as nitrogen, total phosphorus), total suspended solids and chemical oxygen demand.

During the 2010 MS4 Permit term, the area-wide MS4 program will assess each of the pollutants considered a concern (except bacteria, which are already being addressed by TMDL, see LIP Section 11.3) and prepare a strategic plan for addressing each pollutant. For some pollutants such as the metals, the need for special studies for the development of site-specific objectives or total recoverable/ dissolved translators will be evaluated.

Pollutant Source Investigation and Control Plan - The area-wide MS4 program developed and implemented a Pollutant Source Investigation and Control Plan during the

previous permit term to investigate elevated pollutant concentrations of coliform bacteria, zinc, copper and lead at Site 5 (see Table 10-1). Implementation of this plan will continue under the IWMP.

10.5.2 Regional Watershed Monitoring

Regional watershed monitoring refers to the collaboration among the many agencies in and around southern California in addition to municipal stormwater agencies that are interested in watershed to regional scale monitoring. Regional monitoring can be used to assess the cumulative results of anthropogenic and natural effects on the environment and provides opportunities for comparison of the different stormwater agencies' monitoring to determine the breadth and depth of human impacts and natural variability found throughout southern California's watersheds. Examples of regional monitoring programs include the SWAMP, State Wetland's Recovery Project, EPA Environmental Monitoring and Assessment Program, and U.S. Geological Survey's National Water Quality Assessment Program. In addition, a number of regional organizations continue work in the Santa Ana River Watershed area, including the Stormwater Task Force, SMC, SCCWRP and universities. The MS4 Permit requires participation in the following regional monitoring efforts (*Permit Attachment 5, V*):

TMDL Monitoring - The area-wide MS4 program's participation in TMDL monitoring activities is described in LIP Sections 10.3.2 and 11.3 (*Permit Attachment 5, V.1*).

Low Impact Development BMP Monitoring - The area-wide MS4 program participates in data collection and monitoring to assess the effectiveness of LID techniques in semi-arid climate as part of the SMC project, *Quantifying the Effectiveness of Site Design/ Low Impact Development Best Management Practices in Southern California* (*Permit Attachment 5, V.2*).

Regional Bioassessment Monitoring - The area-wide MS4 program participates on the SMC Bioassessment Working Group to support regional bioassessment monitoring (*Permit Attachment 5, V.3*). The program will work in coordination with the SMC to fulfill the bioassessment monitoring requirements incorporated into the MS4 Permit and applicable to the permitted area.

10.5.3 Quality Assurance Project Plan Development

The MS4 Permit requires the area-wide MS4 program to develop a QAPP to support its core monitoring program ((*Permit Attachment 5, III*). The QAPP will address all elements of the SWAMP QAPP guidelines. Data collection, field and laboratory protocol, measurements, and analysis will be compatible with the SWAMP Quality Assurance Management Plan and Procedures for Conducting Routine Field Measurement (www.swcrb.ca.gov/water_issues/programs/swamp). The QAPP will be submitted to the RWQCB for review and approval by DATE.

Section 11
Watershed Management

11.1 Program Description

This section describes MS4 Permit requirements that are watershed-based in scope and implementation. Watershed-based activities include working with the RWQCB on revisions to the Basin Plan, addressing water quality impairments, e.g., through the implementation of TMDLs, and developing a San Bernardino County WAP. The following sections describe the City/County/District's participation in these watershed management activities either through the area-wide MS4 program or as an individual MS4 permittee.

11.2 Basin Planning Activities

The RWQCB periodically reviews and revises the Basin Plan. Often, these reviews are conducted in close coordination with area stakeholders, including the MS4 permittees. The following sections describe current basin planning activities that the area-wide MS4 program or permittees participate in with the RWQCB.

11.2.1 Stormwater Quality Standards Task Force

The area-wide MS4 program is an active participant in the Stormwater Quality Standards Task Force ("Stormwater Task Force"), which consists of representatives of the RWQCB, MS4 permittees for San Bernardino, Riverside and Orange Counties, non-governmental organizations, and other interests (*III.T.3*). The Stormwater Task Force developed revisions to the Basin Plan that will affect the applicability of REC-1 (Water Contact Recreation) and REC-2 (Non-contact Water Recreation) use designations on County waterbodies, modify the water quality objectives for bacteria, establish an acceptable use attainability analysis methodology to refine or reclassify recreational uses in the basin, and establish the basis for how monitoring for bacterial indicators of pathogens occurs in the area.

NOTE: The following text is assumed; it will be edited as appropriate in local LIP documents: The RWQCB adopted a Basin Plan amendment in December 2010. These amendments are currently under review by the State Board and EPA Region 9. After EPA approval, the area-wide MS4 program and MS4 permittees will evaluate additional actions, if any, that the MS4 program will implement as a result of this Basin Plan amendment. This LIP will be revised, as needed, to document these decisions.

11.3 Water Quality Impairments

Section 305(b) of the CWA requires each of the state regional boards to routinely monitor and assess the quality of waters in their respective regions. If this assessment

indicates that beneficial uses are not met in a particular waterbody, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody. The RWQCB conducts the assessment, but the State Board decides which waterbodies are impaired based on the State's 303(d) Listing Policy (*Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*, 2004). The area-wide MS4 program provides data to the RWQCB to support the assessment process. In addition, the MS4 program often comments on the State Board's impaired waters listing proposal.

Water quality assessments occur every two years. The key outcome of the assessment process is the development of the State Board's list of impaired waterbodies. This list is subject to EPA Region 9 approval. In some cases, the EPA may make a determination that additional waters should be listed as impaired. The most recent EPA-approved list of impaired waters, which is based on the 2006 water quality assessment, was approved on June 28, 2007. The approved impaired waters list includes a number of County waterbodies Table 11-1 provides a summary of these waters and the currently suspected cause of impairment. (NOTE: the above paragraph may require revision by the time local LIP documents are required for submittal, specifically, the date of the applicable water quality assessment and the date of the most recent EPA approval of an impaired waters list)

Federal regulations require that a TMDL be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and nonpoint) and still maintain water quality standards. A TMDL is the sum of the individual WLA for point source inputs (including discharges from MS4 facilities), load allocations for non-point source inputs and natural background, with a margin of safety.

Typically, the RWQCB leads the development of the TMDL (however, EPA Region 9 could develop the TMDL in some circumstances). The MS4 permittees participate in the development of the TMDL by providing technical input to the development of models, WLAs, and implementation requirements. The Position Title in the Agency/Department of the City/County/District is responsible for working with the area-wide MS4 program on TMDL development activities.

Table 11-1 provides the current schedule for development of TMDLs by the RWQCB. The following TMDLs have already been developed and are currently in effect in the permitted area:

- *Middle Santa Ana River Bacterial Indicator TMDL* (MSAR Bacteria TMDL) – addresses pathogen impairments in Santa Ana River Reach 3, Chino Creek Reach 1 and 2, Mill Creek (Prado Area), Prado Park Lake, and Cucamonga Creek (Reach 1). The WLAs applicable to the MS4 are:

Table 11-1. List of Impaired Waterbodies for San Bernardino County[1] (NOTE: The content of this table including footnotes may require revision in local LIP documents)

Waterbody	Pollutant/Stressor	Potential Source	Proposed TMDL Completion Date
Big Bear Lake	Copper[2]	Resource extraction	2007
	Mercury	Resource extraction[5]	2007
	Metals	Resource extraction	2007
	Noxious aquatic plants	Construction/Land development; Unknown point source	2006
	Nutrients	Construction/Land development; Snow skiing activities	2006
	PCBs	Source unknown	2019
	Sedimentation/ Siltation[3]	Construction/Land development; Snow skiing activities; Unknown nonpoint source	2006
Summit Creek	Nutrients	Construction/Land development	2008
Knickerbocker Creek	Pathogens[4]	Unknown nonpoint source	2005
	Metals	Unknown nonpoint source	2007
Grout Creek	Metals	Unknown nonpoint source	2007
	Nutrients	Unknown nonpoint source	2008
Rathbone (Rathbun) Creek	Nutrients	Snow skiing activities; Unknown nonpoint source	2008[2]
	Sedimentation/ Siltation	Snow skiing activities; Unknown nonpoint source	2006
Mountain Home Creek	Pathogens	Unknown nonpoint source	2019
East Mountain Home Creek	Pathogens	Unknown nonpoint source	2019
Lytle Creek	Pathogens	Unknown nonpoint source	2019
Mill Creek (Prado)	Nutrients	Agriculture, dairies	2019
	Total Suspended Solids	Dairies	2019
Prado Park Lake	Nutrients	Nonpoint source	2019
Chino Creek Reach 1	Nutrients	Agriculture, dairies	2019
Mill Creek Reach 1	Pathogens	Unknown nonpoint source	2019
Mill Creek Reach 2	Pathogens	Unknown nonpoint source	2019
Santa Ana River (Reach 4)	Pathogens	Nonpoint source	2019

1 Based on State Board 2006 CWA Section 303(d) List of Water Quality Limited Segments, RWQCB, EPA Approved June 28, 2007 (http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/r8_06_303d_reqtmdls.pdf)

2 Big Bear Lake is recommended for delisting for copper in the draft 2010 303(d)-305(b) Integrated Report

3 Big Bear Lake is recommended for delisting for sedimentation/siltation in the draft 2010 303(d)-305(b) Integrated Report

4 See LIP Section 11.3.3 below regarding activities being implemented to address this listing.

5 Resource extraction was removed as a potential source for Mercury in Big Bear Lake and replaced with atmospheric deposition in the draft 2010 303(d)-305(b) Integrated Report

- *Fecal Coliform* - 5-sample/30-day logarithmic mean less than 180 organisms/100 mL and not more than 10% of the samples exceed 360 organisms/100 mL for any 30-day period.

- *E. coli* - 5-sample/30-day logarithmic mean less than 113 organisms/100 mL and not more than 10% of the samples exceed 212 organisms/100 mL for any 30-day period.

These WLAs are applicable to both dry weather conditions (April 1 – October 31) and wet weather conditions (November 1 – March 31). However, the compliance date varies. The TMDL establishes December 31, 2015 as the compliance date for dry summer conditions and December 31, 2025 for wet winter conditions.

- *Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions* – The WLA applicable to the MS4 is 475 pounds/day (lb/day) total phosphorus as an annual average. Although the Big Bear Lake Nutrient TMDL is applicable only to dry hydrologic conditions, the numeric targets specified in the TMDL apply to all hydrological conditions. The TMDL specifies that these targets be achieved no later than 2015 for dry hydrological conditions and no later than 2020 for all other hydrological conditions.

The following sections document the requirements specific to these TMDLs, describe other TMDL development or implementation activities currently ongoing in San Bernardino County, and identify implementation requirements specific to the City/County/District (if any).

11.3.1 Middle Santa Ana River Bacteria TMDL

The TMDL establishes implementation requirements applicable to urban stormwater dischargers (*V.D.1, 2, 3*). These requirements which are incorporated into the MS4 Permit and their status include:

- Implement a watershed-wide water quality monitoring program according to an approved Monitoring Plan and QAPP. This monitoring program began in 2007. The RWQCB-approved Monitoring Plan and QAPP are available from SAWPA (www.sawpa.org) or the RWQCB (www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/msar_tmdl.shtml).

- Submit dry and wet season reports summarizing all relevant data from the watershed-wide water quality monitoring program. Each year these reports are due to the RWQCB by December 31 and May 31, respectively. Seasonal reports have been regularly submitted since December 2008 and are available from SAWPA (www.sawpa.org).

- Submit comprehensive reports every three years summarizing the data collected for the preceding three year period and evaluating progress towards achieving the urban WLA by the dates specified in the TMDL. These reports are due to the RWQCB by February 15th; the most recent submittal was February 15, 2010; the next submittal is February 15, 2013.

- Implement a RWQCB-approved Urban Source Evaluation Plan (USEP) which describes the specific methods that will be used to identify urban sources and BMPs to address those sources. Implementation of the USEP includes submission of semi-annual reports each year. These reports are due each year on January 31 and July 31, except that in a year when a comprehensive report is due by February 15 the comprehensive report, dry season report and the January 31 USEP reports may be combined into a single submittal due February 15th. The USEP was approved by the RWQCB in 2008; required semi-annual reports are regularly prepared.

- Revise the MSWMP and WQMP, as needed and summarize any such revisions in the Annual Report. A draft revision of the WQMP is due to the RWQCB for review by July 29, 2011. Based on RWQCB comments, a final revised WQMP will be prepared. Reviews of the MSWMP occur periodically (see LIP Section 9.4).

- Revise this LIP to be consistent with the revised MSWMP and WQMPs within 90 days after revisions to the MSWMP and WQMP are approved by the RWQCB.

Currently, the area-wide MS4 program implements its responsibilities under this TMDL in the following manner:

- The MS4 program is a participant and funding partner for the MSAR Bacteria TMDL Task Force (MSAR Task Force). The MSAR Task Force is administered by SAWPA and includes representatives of the San Bernardino and Riverside County MS4 programs, Cities of Claremont and Pomona, agricultural interests, and the RWQCB. The MSAR Task Force convenes periodically to direct the implementation efforts associated with water quality monitoring and urban source identification activities ranging from compliance monitoring to source evaluation studies (see www.sawpa.org for more information).

- The area-wide MS4 program works collaboratively to develop revisions to the MSWMP and WQMP. Revisions to LIPs are the responsibility of the individual MS4 permittees (see LIP Section 9.5). If such revisions are necessary, the Position Title in the Agency/Department is responsible for revising the LIP within 90 days of RWQCB approval of changes to the MSWMP and WQMP and summarizing the modifications for inclusion in the Annual Report.

The MS4 Permit also required the MS4 permittees to develop a Comprehensive Bacteria Reduction Plan (CBRP), which is a long term plan designed to achieve compliance with the WLAs for dry weather conditions by December 31, 2015. A draft

CBRP was submitted to the RWQCB for review on December 31, 2010. Based on the RWQCB's comments the draft CBRP was revised and re-submitted for RWQCB approval on DATE. Currently, the CBRP is undergoing a RWQCB-directed public review. When finalized, implementation of the CBRP will likely begin by November 2011.

The LIP will be revised, as needed, within 180 days of final approval by the RWQCB. The Position Title of the Agency/Department is responsible for revising the LIP to ensure consistency with the CBRP. Currently, it is expected that the following activities will be undertaken by the City/County/District as part its responsibilities under the CBRP:

> *INSERT action items applicable to City/County/District along with schedule and the Position Title of Agency/Departments that are expected to have implementation responsibilities under the CBRP.*

11.3.2 Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions

The MS4 Permit requires the City of Big Bear Lake, the County of San Bernardino and San Bernardino County Flood Control District (Big Bear Lake MS4 permittees) to implement BMPs designed to assure continued compliance with the urban WLA for phosphorus during dry hydrological conditions (annual average of 475 lbs/yr total phosphorus) (*V.D.4*). The Big Bear Lake MS4 permittees currently meet this WLA.

To support implementation of this TMDL, the Big Bear Lake TMDL Task Force was established in 2007. Administered by SAWPA, this Task Force is currently working on the following activities associated with this TMDL (see www.sawpa.org for current status of program activities):

- Implementation of the RWQCB-approved Big Bear Lake In-Lake Nutrient Monitoring Plan. The results of this monitoring program are reported to the RWQCB annually by February 15. The RWQCB approved Monitoring Plan and QAPP are available from SAWPA.

- Implementation of the RWQCB-approved Big Bear Lake Watershed-wide Nutrient Monitoring Plan. The results of this monitoring program are reported to the RWQCB annually by February 15.

- Development of a Big Bear Lake Management Plan (Task 6 of the TMDL Implementation Plan), which will include the following elements:

  - Development of the *Big Bear Lake Management Plan to Control Noxious and Nuisance Aquatic Plants*.

  - Update of the existing Big Bear Lake watershed nutrient model and the Big Bear Lake in-lake nutrient model.

- Development of a plan and schedule for in-lake sediment nutrient reduction for Big Bear Lake.

As required, the Big Bear Lake MS4 permittees will participate in the implementation of the Big Bear Lake Management Plan after it is approved by the RWQCB. This plan is reviewed at least once every three years and updated as needed to take into account new data or requirements associated with new or revised TMDLs for Big Bear Lake and its watershed. The results of all monitoring, implementation activities and Lake Management Plan reviews are reported in an annual report submitted to the RWQCB by February 15 each year.

The Big Bear Lake MS4 permittees revise the MSWMP, WQMP, and this LIP, as needed, to incorporate any requirements that arise from the implementation of this TMDL. Revisions are made within 180 days of RWQCB approval of elements of the Big Bear Lake Management Plan. A summary of these revisions is included in the area-wide MS4 program Annual Report.

As noted above, the Big Bear Lake MS4 permittees currently comply with the TMDL's WLA for total phosphorus. However, in the future if water quality monitoring data and related modeling analyses indicate non-compliance with the WLA despite implementation of the Lake Management Plan requirements, the Big Bear Lake MS4 permittees will implement the following procedures:

- Each Big Bear Lake MS4 permittee with MS4 facilities upstream of the monitoring locations where exceedances appear to be occurring will evaluate and characterize the discharges from significant outfall locations; and

- The Big Bear Lake MS4 permittees will submit a report with proposed actions to the RWQCB that describes the BMPs that are currently being implemented and any additional BMPs that will be implemented to reduce the controllable sources of phosphorus causing the exceedances of the WLA. This report is incorporated into the area-wide MS4 program's Annual Report.

In the City/County/District, the Position Title of the Agency/Department regularly participates on the Big Bear Lake TMDL Task Force. This Position Title is also responsible for ensuring that the City/County/District implements its responsibilities under the TMDL. In addition, the Position Title is also responsible for revising this LIP, as needed, to include:

- Results of the nutrient monitoring programs;

- Evaluations of the effectiveness of the control measures in meeting the phosphorus WLAs;

- Any additional control measures proposed to be implemented if the WLA or numeric targets are exceeded, including control measures for controlling nutrient inputs from new developments and/or new sources; and

- A progress report that evaluates progress towards meeting the WLAs if not in compliance.

INSERT additional information as necessary to satisfy the information requirements contained in these bullets.

11.3.3 Other Impaired Waters Activities

The MS4 Permit includes additional requirements to address impaired water concerns in the Santa Ana River watershed portion of San Bernardino County. As appropriate, these requirements are implemented as part of the area-wide MS4 program and/or by individual MS4 permittees. The following sections summarize other MS4 Permit requirements designed to address impaired waters in the area. Where appropriate, implementation responsibilities applicable to the City/County/District, if any, are also described.

Knickerbocker Creek – Pathogens

Knickerbocker Creek is listed as impaired for pathogens. Studies have previously shown that urban runoff from the City of Big Bear Lake is the sole source of elevated bacteria in Knickerbocker Creek. Accordingly, a TMDL was not required; instead, the RWQCB determined that elevated bacteria would be addressed best through implementation of the MS4 Permit. In response, the City of Big Bear Lake developed the following in 2005:

- Plan and schedule to identify and investigate the sources of bacteria;

- List of the BMPs that were currently being implemented and additional BMPs that must be implemented to address the exceedance of bacteria in Knickerbocker Creek;

- Plan and a schedule for implementation of additional control measures (including BMPs) to reduce or eliminate the exceedances; and

- Plan and a schedule for implementation of a monitoring program to evaluate the efficacy of any control measures implemented

The City implemented a number of activities which the City believes will address the bacteria problems in the Creek. Completed activities include:

- Source identification study and implementation of Phase 1 of the water quality monitoring program in 2006. Molecular DNA analysis confirmed that the bacteria contamination was not from human sources, but more likely from canine sources (domestic dogs).

- Investigation of the entire sewer and septic systems located near Knickerbocker Creek, which found no sanitary sewer leaks or septic system problems in the area.

- In December 2007, the City purchased and installed several pet waste stations in the Knickerbocker Creek catchment areas, and installed portable toilets near parks and other recreational areas.

As required by the 2010 MS4 Permit, the City is currently implementing Phase 2 of the water quality monitoring program to assess the effectiveness of these control measures (*V.D.5*). The City annually reviews its program to reduce bacteria in Knickerbocker Creek and, as necessary, revises the control measures being implemented. The City will continue to implement this iterative approach until water quality objectives within Knickerbocker Creek are attained, unless it can be demonstrated that the pathogen sources are from uncontrollable sources. The Position Title in the Agency/Department is responsible for implementing these requirements.

The City is also continuing to work with RWQCB staff and the Stormwater Task Force to review and update designated uses and related water quality objectives for Knickerbocker Creek. Participation in the Stormwater Task Force occurs through the area-wide MS4 program (see LIP Section 11.2.1).

Big Bear Lake – Mercury

The RWQCB is currently developing a mercury TMDL for Big Bear Lake. Recent monitoring efforts and technical support documents (*Big Bear Lake Technical Support Document for Mercury TMDL*, September 2008, Prepared by Tetratech for EPA Region 9 and RWQCB) to determine the source of mercury and to support development of a TMDL indicate that although the majority of the watershed load originates from atmospheric deposition, delivery of mercury to Big Bear Lake is dependent on runoff and sediment transport to the lake. However, the RWQCB has indicated that there are insufficient data to draw conclusions about the effect of urbanization on mercury input to the Lake.

The RWQCB expects to complete this TMDL during the term of the 2010 MS4 Permit. Pending adoption of the TMDL, the MS4 Permit requires the City of Big Bear Lake to participate in the development and implementation of monitoring programs and control measures, including any BMPs that the City is currently implementing or proposing to implement (*V.D.6*). This participation occurs primarily through the work of the Big Bear Lake TMDL Task Force (see www.sawpa.org current information). The Position Title in Agency/Department in the City of Big Bear is responsible for participating in Task Force activities.

Future TMDLs

Table 11-1 shows that other TMDLs will be developed in the future. For these 303(d) listed waterbodies that are currently without a TMDL, the MS4 Permit requires permittees to participate in the development and implementation of TMDLs and

WAPs (see LIP Section 11.4). If a TMDL has been developed and an implementation plan is yet to be developed (e.g., when EPA Region 9 established the TMDL), the permittees are required to develop constituent-specific source control measures, conduct additional monitoring, and/or cooperate with the development of an implementation plan.

The RWQCB posts TMDL information on its website[1]. This LIP will be updated as needed to describe any additional TMDL implementation requirements applicable to the area-wide MS4 program or the City/County/District. The Position Title of the Agency/Department of the City/County/District is responsible for monitoring, and where appropriate, participating in TMDL development activities in coordination with the area-wide MS4 program.

11.4 Watershed Planning

The MS4 Permit requires that the area-wide MS4 program and permittees incorporate watershed planning into stormwater management activities. The following sections describe how watershed planning is incorporated into both the area-wide and City/County/District MS4 program.

11.4.1 Watershed Protection Principles

The MS4 permittees implement watershed protection principles through the project planning process conducted for new development and significant re-development projects (see LIP Section 5). The 2010 MS4 Permit requires that that area-wide MS4 program conduct a detailed review of these principles and how they are implemented in San Bernardino County (*XI.C.4*). Specifically, the MS4 Permit requires that the area-wide MS4 program develop common watershed protection principles and policies necessary for the protection of water quality that include the following:

- Avoid disturbance of natural water bodies, drainage systems and floodplains; conserve natural areas; protect slopes and channels; minimize impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and waterbodies;

- Minimize changes in hydrology and pollutant loading; require incorporation of controls including structural and non-structural BMPs to mitigate any projected increases in pollutant loads and flows; ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, stream habitat; minimize the quantity of stormwater directed to impermeable surfaces and the MS4s; maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground;

- Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;

[1] http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/index.shtml#projects

- Use properly designed and well maintained water quality wetlands, biofiltration swales, watershed-scale retrofits, etc., where such measures are likely to be effective and technically and economically feasible;

- Provide for appropriate permanent measures to reduce stormwater pollutant loads in stormwater from a development site;

- Establish development guidelines for areas particularly susceptible to erosion and sediment loss; and

- Consider pollutants of concern.

The area-wide MS4 program works collaboratively to identify impediments to implementation of these principles and policies and develop recommendations for addressing these impediments.

As required by the MS4 Permit, the City/County/District recently reviewed the watershed principles and policies, described above, in the context of the City/County/District's planning procedures (*XI.B.2*). This effort included a review of the following (Note: Text is past tense since this to be completed by January 29, 2011, prior to submittal of LIP):

- Preparation of CEQA documentation;

- Project review and approval processes conducted as part of WQMP development; and

- City/County/District General Plan and related documents including (INSERT appropriate documents, e.g., local development and design standards, zoning codes, conditions of approval).

As a result of this review, the City/County/District identified the following action items to reduce impediments to implementation of watershed protection principles in City/County/District projects (INSERT outcome of review):

> *Example Text: The City/County/District is planning to implement the following activities/steps to modify the following documents and/or planning procedures to update/incorporate the watershed protection principles and policies listed above: INSERT list of activities/schedule. If General Plan revisions are included, incorporate this permit requirement (permit section XI.C.5): When revisions to the General Plan undergo review, the City/County/District will provide the RWQCB with the draft amendment or revision.*

11.4.2 Watershed Action Plan

The MS4 Permit requires development of a WAP to (1) address cumulative impacts of development on vulnerable streams, (2) preserve or restore to the MEP the structure

and function of streams in the permitted area, and (3) protect surface water quality and groundwater recharge areas. The WAP is expected to integrate hydromodification and water quality management strategies with land use planning policies, ordinances, and plans within each permittee's jurisdiction. The process for development of the WAP is described below. Until the WAP is completed and approved by the RWQCB, the permittees address the impacts of urbanization as required by the new development and significant re-development program requirements (see LIP Section 5).

The area-wide MS4 program is developing the WAP in two phases (*XI.B.3.a, b*). Phase 1 was completed in January 2011. As part of this effort, the area-wide MS4 program completed the following activities (NOTE: written in past tense as this should be completed prior to LIP due date):

- Identified program-specific objectives for the WAP, which included consideration of all of the following:
  - Watershed protection principles and potential impediments to implementing these principles (see LIP Section 11.4.1);
  - Permittee's planning procedures review (see LIP Section 11.4.1);
  - Impaired waters listings with and without approved TMDLs including pollutants causing impairment and monitoring programs to evaluate them, and control measures, including any BMPs currently being implemented or planned for implementation; and
  - TMDLs where an implementation plan has not yet been developed, e.g., consideration of constituent-specific source control measures consistent with the MEP standard, additional monitoring needs, and cooperation with the development of an implementation plan.
- Developed a WAP structure that emphasizes coordination of watershed priorities with the permittees' LIPs via the area-wide model LIP;
- Identified linkages between the WAP and the Stormwater Task Force, MSWMP, WQMP, implementation of LID, and TMDL Implementation Plans;
- Identified other relevant existing watershed efforts (e.g., Chino Basin Master Plan, SAWPA's Integrated Resource Water Management Plan, etc.) and their role(s) in the WAP;
- Ensured that the HCOC Map/Watershed Geodatabase is available to watershed stakeholders via the Internet and developed the following information:

- Delineation of existing unarmored or soft-armored drainages in the permitted area that are vulnerable to geomorphological changes due to hydromodification and those channels and streams that are engineered, hardened, and maintained;

- GIS layers for known sensitive species, protected habitat areas, drainage boundaries, and potential storm water recharge areas and/or reservoirs;

- Impaired or 303(d)-listed waterbodies and associated pollutants; and

- Available and relevant regulatory and technical documents accessible via hyperlinks.

- Developed a schedule and procedure for maintaining the Watershed Geodatabase, and developed a draft schedule for expected enhancements of the database to increase functionality;

- Reviewed the Watershed Geodatabase with RWQCB stormwater, TMDL, and watershed planning/ program section staffs and other resource agencies, to verify database attributes, including drainage feature stability/susceptibility/risk assessments, and the intended use of the Geodatabase to support regulatory processes such as WQMP approvals, 401 Certifications, and LID BMP feasibility evaluations;

- Identified potential causes of identified stream degradation including a consideration of sediment yield and balance on a watershed or subwatershed basis;

- Conducted a system-wide evaluation to identify opportunities to retrofit existing stormwater conveyance systems, parks, and other recreational areas with water quality protection measures, and develop recommendations for specific retrofit studies that incorporates opportunities for addressing applicable TMDL implementation plans, hydromodification management, and/or LID implementation within the permitted area;

- Conducted a system-wide evaluation to identify (a) opportunities for joint or coordinated development planning to address stream segments vulnerable to hydromodification and coordinated re-development planning to identify restoration opportunities for hardened and engineered streams and channels; and (b) contributing jurisdictions and the stream segments that will benefit from this coordination; and

- Invited participation and comments from resource conservation districts, water and utility agencies, state and federal agencies, non-governmental agencies and other interested parties in the development and use of the Watershed Geodatabase.

The Phase 1 Report was submitted to the RWQCB for approval on INSERT DATE. Within 12 months of RWQCB approval of the Phase 1 Report, the area-wide MS4 program will implement Phase 2 of the WAP development process. The Phase 1 Report was approved on INSERT DATE. Accordingly, Phase 2 will be completed by INSERT DATE (NOTE: have assumed that Phase 2 will be in process by the time the local LIPs are due). Phase 2 is expected to include the following activities (*XI.B.3.b*):

- Contingent upon consensus with RWQCB staff and other resource agencies specify procedures and a schedule to integrate the use of the Watershed Geodatabase into the implementation of the MSWMP, WQMP, and TMDLs.

- Develop and implement a HMP to evaluate hydromodification impacts for the drainage channels deemed most susceptible to degradation. The HMP will identify sites to be monitored, include an assessment methodology, and required follow-up actions based on monitoring results. Where applicable, monitoring sites may be used to evaluate the effectiveness of BMPs in preventing or reducing impacts from hydromodification.

- Develop and implement the HMP prioritized based on drainage feature/susceptibility/risk assessments and opportunities for restoration.

- Conduct training workshops for City/County/District planning and engineering staff in the use of the Watershed Geodatabase.

- Conduct demonstration workshops for appropriate City/County/District upper level managers and directors on the Watershed Geodatabase.

- Develop recommendations (potentially in cooperation with other counties) for streamlining regulatory agency approval of regional treatment control BMPs. The recommendations should include information needed to be submitted to the RWQCB for approval of regional treatment control BMPs. At a minimum, this information will include: BMP location; type and effectiveness in removing pollutants of concern; projects tributary to the regional treatment system; engineering design details; funding sources for construction, operation and maintenance; and parties responsible for monitoring effectiveness, operation and maintenance.

- Implement applicable retrofit or regional treatment recommendations from the evaluation conducted in Phase 1.

The Phase 2 report will be submitted to the RWQCB for review. The submitted report will be deemed acceptable to the RWQCB if the no written objections are provided within 30 days of submittal. The combined final Phase 1 and 2 Reports will constitute the WAP for the area-wide MS4 program.

Following completion of the WAP, the LIP will be revised as needed to incorporate the mechanisms, procedures, and/or programs that will be implemented by the City/County/District to ensure stormwater management procedures are coordinated through implementation of the WAP (. In addition, by January 29, 2013, the City/County/District will review the watershed protection principles and policies in its General Plan or related documents (e.g., development/design standards, zoning codes, conditions of approval, etc.) to determine consistency with the completed WAP (*XI.B.4*). The Position Title of the Agency/Department will be responsible for completing this review. The findings from this review, including a schedule for necessary revisions of any City/County/District documents, will be reported in the Annual Report.

Appendix A
Implementation Agreement

Appendix B
MS4 Facility Drainage Map

Appendix C
Legal Certification

Appendix D
Stormwater Ordinance

Appendix E
Enforcement Procedures

Appendix F
Restaurant Inspection Form

Appendix G
Construction Site Inspection Checklist

Appendix H
WQMP Review Checklist

Appendix I
Development Project Close-Out Checklist

Appendix J
Public Agency Facility Inspection Checklist

Appendix K
SSO Unified Sewage Response Plan

Appendix L
County Pet Management Ordinance

Appendix M
Agency Notification List